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HAMILTON BEACH CONCEPT PLAN

FINAL REPORT
SEPTEMBER 1987

SUBMITTED BY:

MOORE/GEORGE ASSOCIATES INC.

LANDSCAPE ARCHITECTS

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GOVERNMENT DOCUMENTS

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GOVERNMENT DOCUMENTS
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September 28, 1987

Alderman Reg Wheeler
Chairman
Hamilton Beach Steering Committee
City Hall
Hamilton, Ontario

Dear Alderman Wheeler:

We are pleased to submit this Final Report for the Hamilton Beach Community Concept Plan.

This area has historically been recognized as an important natural resource by the Province of Ontario, the City of Hamilton and, of course, by the residents of the Beach. It is unique and while people have lived here for over 200 years, human settlement has not been without problems. The Concept Plan which is recommended in this report advocates strengthening the existing community while at the same time responds to the responsibility of providing regional open space and increased public access to the Lake Ontario shoreline.

We believe that both of these objectives are valid and achievable.

The Plan provides a basis for a number of key decisions to be made. These include the following:

1. The proposed acquisition of all of the private Beach properties and the subsequent use of the entire area for parkland should be discontinued.
2. The community should be retained and strengthened by encouraging additional development in selected areas.
3. A sanitary sewer system must be developed in order to overcome environmental problems and to provide a long-term solution to human settlement of this area.

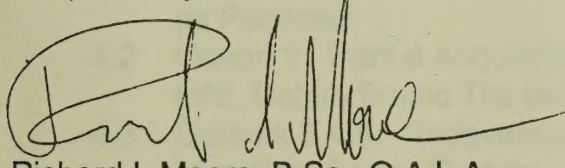
4. The waterfront must be improved, developed and then managed in order to provide increased public access opportunities in a manner which is compatible with private landowners.
5. The long-term acquisition of private lands in selected areas should be pursued in order to reduce environmental problems in some cases and to provide regional waterfront park and access opportunities.

In order to complete this assignment it has been necessary to keep one very key question in mind. That is, "What kind of place should the Beach area be in 50 years?"

We believe that the answer should envision a community that is well maintained and healthy providing a quality living environment. It should also be a place for all people to enjoy the Lake Ontario shoreline.

We trust that this report and Concept Plan help to fulfill this objective.

Respectively Submitted,

A handwritten signature in dark ink, appearing to read 'Richard I. Moore', is written over a horizontal line.

Richard I. Moore, B.Sc., O.A.L.A.

RIM:sr
encl.

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CHAPTER 1:

1. SCOPE AND OBJECT OF THE STUDY

1.0 INTRODUCTION

The Hamilton Beach Area has been recognized as a unique landform for over 300 years. Early permanent settlement began in 1830 when the Canal was officially opened. For the next 90 to 100 years it gradually became more urbanized. As the popularity of the area became widely known, as population of the City of Hamilton increased and as access to the area was improved, the Beach came under more and more pressure to accommodate a number of different uses.

Hindsight suggests that it would have been most useful to have had a master plan prepared around 1920 which would have responded to the environmental factors, recreational potential and permanent housing demands. Ideally, a master development plan would have been prepared which established the "carrying capacity" of this site. This type of planning was not practised during that time period and consequently the area was over-developed in a somewhat haphazard fashion. This eventually led to both environmental degradation of the resource itself and a failure to resolve competition between land uses (residential vs open space).

The task at hand is to undo the mistakes of the past and hopefully set out a concept plan that responds to the present numerous and somewhat complex factors which impact on the Beach. At the same time, there must be acceptance of a responsibility to the future population. The plan must set the right long-term vision for this unique landform and for the spirited community that has evolved with it.

1.1 SCOPE AND INTENT OF THE STUDY

In 1975 the Province of Ontario, through the Hamilton Region Conservation Authority, agreed to participate with the City of Hamilton in the acquisition of properties along the Hamilton Beach between Confederation Park boundary on the east, and the Canal on the west. The acquisition project was initiated as a result of flooding and septic tank malfunctions which were experienced along with high water levels of 1973. The intention was to acquire all properties and develop the area as parkland. During the

period 1976 to 1985 approximately \$4,000,000 was spent for the acquisition of 174 properties. The Ministry of Transportation and Communications acquired a further 95 properties to accommodate the widening of the QEW and the construction of a new bridge over the Canal. In the beginning of 1985, approximately 416 properties remained in private ownership.

In response to concerns voiced by local residents with the total land acquisition program, the City of Hamilton and the Hamilton Region Conservation Authority commissioned this study of the Hamilton Beach Area which was to investigate the feasibility of alternative courses of action (other than entire acquisition) and recommend a concept plan to guide long-term development of the Hamilton Beach area.

The preparation of the concept plan was to be undertaken working closely with a Steering Committee whose members represented the Conservation Authority, the City of Hamilton and Region, the Province of Ontario, the public-at-large, and the Beach community. (For a list of Steering Committee members consult Appendix 1.)

The study was conducted in response to Terms of Reference (Appendix 2) drawn up by the Conservation Authority and City of Hamilton. Additional work was undertaken as deemed necessary to properly consider as many factors as possible. This included a flood damage calculation and an assessment of the economic implications of alternative proposals.

The concept plan which is recommended in this report is the conclusion of planning work undertaken over the past 14 months. It establishes a framework and key principles for future development and management of this unique community and waterfront resource. This concept plan does not resolve all of the specific details related to land use planning, land ownership and development. These must be dealt with as the concept plan is refined and as the implementation scheme, policies and procedures are negotiated by the several parties and interests involved with the area.

1.2 THE PLANNING PROCESS

A phased planning process has been undertaken which has allowed key decisions to be taken as various background studies were completed. The significance of each new background report was interpreted and options were generated for review by the Steering Committee and public.

Resident input was solicited using a number of different methods. In June of 1986 a questionnaire was distributed to each household within the study area. A public meeting was conducted June 4, 1986 to acquaint residents with the study and to provide an opportunity for them to make their concerns known. Residents were invited to attend one of three workshop sessions on February 12, 1987 in which options were presented and discussed. A public meeting was held on July 27, 1987 to present the preliminary final concept plan.

The Steering Committee has reviewed the work in stages as it progressed and has provided critical assessment of the findings. The Ministry of Natural Resources also reviewed background reports when submitted and has had representation on the Steering Committee.

1.3 CONTENTS OF REPORT AND BACKGROUND DOCUMENTS

This report summarizes the background studies which have been prepared and submitted under separate cover, outlines the recommended planning principles on which the plan is based, describes the alternative concepts which were considered, outlines the recommended concept plan, and presents implementation procedures. The background reports have included the following:

- | | |
|---|----------------|
| • Community Survey Results | July, 1986 |
| • Working Paper #1 | October, 1986 |
| • Hamilton Beach Flood Study | December, 1986 |
| • Hamilton Beach - Report on Services | December, 1986 |
| • Economic Implications of Hamilton Beach Study Options | July, 1987 |

CHAPTER 2:

MARY OF

- ## CHAPTER SUMMARY BACKGROUND INFORMATION

2.0 SUMMARY OF BACKGROUND INFORMATION

Several different types of background studies were undertaken to help provide a basis for concept plan preparation. These included reviewing the history of the area, undertaking a detailed community survey distributed to each household, investigating a number of environmental quality related issues such as groundwater levels and air quality factors. A separate flooding and damage calculation report was prepared to determine the expected magnitude of flooding problems. The possibility and need for a sewer system was investigated. These reports have been summarized on the following pages.

2.1 COMMUNITY SURVEY

A community survey was designed and distributed to each household in the Beach study area. Of the 443 surveys distributed, 288 were returned for a response rate of 64.6%. The purpose of the questionnaire was to gather information about the community and the residents' opinions related to future development. The key results are outlined below.

- 82% of respondents owned their place of residence; 16% rent
- 54% had lived in the study area over 20 years; 70% have lived there over 10 years
- 90% indicated that they were not considering moving out of their dwelling
- 25% of respondents reported experiencing property damage due to flooding
- 97% of the above indicated flooding to their basements only
- 22% reported problems with sewage disposal systems
- 83% suggested that the provision of sanitary sewers was the most important community improvement required
- out of three options which were presented in the survey, 78% responded negatively to the full acquisition concept, 77% responded positively to providing sewers and developing additional housing and 58% suggested leaving the community exactly as it is

- of those responding positively to the option of providing sewers and developing additional housing, 57% thought this to be very desirable and 21% indicated that this was desirable, 7% thought that this would be undesirable
- of those (58% of respondents) suggesting to maintain the community exactly as it presently exists (no sewers), 34% thought this to be very desirable, and 25% desirable.

2.2 HISTORICAL BACKGROUND

The history of the Hamilton Beach was reviewed from a land use and settlement point of view. This information was obtained from a number of reports assumed to be historically accurate. This particular site and landform is unique in Ontario, and was considered to be strategically located especially in terms of early transportation networks. This uniqueness has prompted a number of government decisions to be taken which relate to the settlement and use of the site. The first of these appears to be when John Graves Simcoe, Governor of Upper Canada ordered the construction of Kings Head Inn in 1794. This was to serve as a government inn but also had a military function reflecting the strategic importance of the sandbar. The construction of a Canal in 1823, the authorization of land sales in 1874, the Burlington Beach Act of 1907, the construction of the Queen Elizabeth Way in 1933 and the Skyway Bridge in 1957 all have had significant impacts on the area.

The acquisition program initiated in 1975 and the present concept plan preparation are also significant government sponsored actions which clearly demonstrate that the Hamilton Beach is a unique landform which creates special needs in terms of human settlement. Following is an outline of a number of historical factors which are felt to be relevant to concept plan preparation.

- The first documented siting of the beach area appears to be approximately 300 years ago (1669) by the French explorer Robert Cavelier (LaSalle).
- John Graves Simcoe, Governor of Upper Canada ordered the construction of King's Head Inn in 1794. This was to serve as a government inn but also had a military function reflecting the strategic importance which was attached to the sand bar.

- Descriptions of the area in 1796 and 1813 indicate the presence of "large spreading oaks", immense basswood and large willows. These are all species which have a considerable life span (white oaks can be 600 years old) and indicate that the landform has been a permanent landscape unit for several hundred years.
- The area began to be used for commercial purposes after the war of 1812. Storehouses, a tavern and a few houses were constructed around the inlet to the bay.
- The Government of Upper Canada was requested to become involved in the development of the area by constructing a canal to join the lake and bay. This was finally agreed to in 1823, and was officially opened in 1830.
- With the opening of the canal, the adjoining lands were used for more intensive commercial uses and there are references to people using the beach for market gardening and as a base for fishing.
- During the 1850s the area started to be used for recreational purposes.
- About 100 years ago (1874) the right to sell land was given by the Province to the City of Hamilton and extensive recreational and summer residences were established.
- The completion of the Hamilton and Northwestern Railway in 1876 made the beach accessible and use increased.
- Recreation and tourism were the major uses of the area up to approximately 1920. Major hotels were constructed (Ocean House, 1875; the Royal Hamilton Yacht Club, 1891); the Electrical Radial (1896) made day-use practical. Additional facilities included a major amusement park in 1903, and a promenade on the bay side.
- By 1910 there were many summer residences and land was becoming scarce. It is reported that there was also permanent beach residents who fished, hunted, farmed and operated the resort facilities.
- In 1907 the Ontario Legislature, recognizing and responding to the uniqueness of the area created the "Burlington Beach Act" and established the Beach Commission government. This lasted until 1958 when Hamilton annexed the area.
- Between 1920 and 1950 the beach changed from a primarily resort and recreation area to a permanent residential community. Housing shortages in Hamilton, the Depression, increase of heavy industry, water pollution of the bay and the accessibility of other resort areas all had an impact.

- The 1936 permanent population is reported to have been 1116, in 1956 this had grown to 3327.
- The first school was opened in 1916 and was used until it was destroyed by fire in 1950. In 1952 Bell Cairn School was opened and was used until 1981 when it was closed.
- Flooding was reported in 1943, 1947, 1952, 1954 and 1955 and created problems for local residents.
- The 1950s and early 60s appeared to be the most stable for the community. The population had increased and supported several stores and restaurants, an amusement park and a dance hall. At this same time there were accommodations for tourists and there was a "mixed use" concept in place.
- The QEW was built in 1933, however, the Skyway Bridge was not constructed until 1956-57. In order to establish room for this construction, 93 properties were acquired.
- The 1969 Official Plan for the area indicated a population of 3168 and supported predominantly single family residential with some areas of high density and commercial uses. It also indicated that the quality of housing was deteriorating with 50% in poor condition and the remainder in fair condition.

SUMMARY

SPECIAL ONTARIO GOVERNMENT INVOLVEMENT WITH BEACH AREA

- 1794: Initial development of Kings Head Inn
- 1823: To build canal
- 1874: To authorize City of Hamilton to sell properties
- 1907: Burlington Beach Act
- 1956: Construction of Skyway Bridge
- 1975: To subsidize acquisition of properties
- 1986: To provide funds for new Master Plan of area

ENVIRONMENTAL FACTORS

- 1796: Mature deciduous species (*Quercus Alba*) identified establishing permanency of landform
- 1850-1900: High quality landscape, air and water quality
- 1926: Waters of bay polluted by industry
- Flood damage reported in 1943, 1947, 1952, 1954, 1973
- Air pollution problems reported in 1966 (coal dust); reoccurrence in 1977

LAND USE FACTORS

- Initially the area was strategically important for military purposes
- 1823: Commercial development began with canal construction
- 1870-1920: Intensively used for recreation and tourism, limited permanent residences
- 1920-1950: Transition to residential area
- 1950-1960s: Population growth to about 3500 people, stable community which included commercial and tourism facilities
- Late 1960s quality of housing declined
- 1975: Land acquisition program began

2.3 ENVIRONMENTAL CONDITIONS

Several different environmental conditions were investigated to determine the suitability of the Beach area for urban development. It should be kept in mind that historically, environmental conditions have had an important influence on the use of this unique landform. From 1794 when the area was first started to be developed through to the 1920s, the Beach was an attractive destination, particularly because of the superior environmental conditions which prevailed. Industrial development, the construction of the QEW and the density of residential development all contributed to reducing environmental quality. Three environmental factors which have been considered in order to prepare the concept plan are air quality, flooding and groundwater/septic tile bed suitability.

2.3.1 AIR QUALITY

The air quality data for Hamilton Beach was reviewed with the assistance of staff from the Ministry of the Environment. The objective was to determine how air quality in the Beach area compares to other locations in Hamilton. The following relevant points were identified:

- The Beach is most severely impacted when winds are from the southwest, this is about 40% of the time. However, these are also the most brisk winds and therefore do have a clearing tendency as well.
- Up to 1985, the air quality station was located on North Park about 60 feet from the edge of the QEW. This exceeded Ministry standards and measurements taken at this location were significantly affected by vehicle traffic.
- Since moving the station to the Bell Cairn school site, less severe pollution indications have been measured.

- There is a clear indication therefore that air quality immediately adjacent to the QEW is worse than along Beach Boulevard.
- One of the measurements studied by MOE is the Total Suspended Particulates, and is expressed in micrograms per cubic metre. A measurement of 60 micrograms per m^3 is a desirable goal or objective. In 1985 the new station on the Beach recorded an average of 69 micrograms per m^3 compared to 113 micrograms/ m^3 in the industrial area.
- In terms of the Soiling Index, the yearly objective is a measurement of .5 COH's, the Beach measured .39 at the new station (less than the objective) and .71 at the old station closer to the QEW. The Barton Street location has consistently measured above the annual objective since 1971.
- In terms of Dust Fall, the yearly average MOE objective is a measurement of 4.5. In 1983 the Beach (North Park) measured 9.8, in 1984 - 11.6, in 1985 at the new station the annual average was 6.1. This latter figure was the third lowest out of 15 stations in the Hamilton area.
- Sulphur compounds are one of the other measurements of air quality. A standard of 20 parts/billion for 1 hour exists. This was exceeded relatively few times (15) on the Beach (16 at Barton Street). It is possible to smell hydrogen sulphide at 8 parts/billion, however. In 1985 the Beach exceeded 10 parts/billion for 100 hours during the year. The Barton Street station exceeded 10 parts/billion for 116 hours.
- While it can be observed from the above data that air pollution is significant it must be put in the Hamilton context. It would appear that air quality on the Beach is not the worst in the City and that gradual improvement can be expected.
- The management of the DoFasco coal piles, closing of cooling towers anticipated in 1987 will help to improve air quality further.
- Notwithstanding the above, the QEW is a major localized source of air pollution. As traffic volume is expected to increase this pollution may not be expected to decline. The impact is greatest closer to the highway and lessens towards Beach Boulevard.
- MOE has established acceptable zones for siting air quality monitors. At 2 metres above ground, a minimum distance of 25 metres from the edge of roadway has been established.

LAKE ONTARIO WATER ELEVATIONS

INFORMATION SOURCE CANADA INLAND WATERWAYS LAKE
ELEVATION LEVELS AT STATION 13150 BURLINGTON, ONT.

HIGHEST EVER ELEVATIONS

HIGHEST EVER INSTANTANEOUS ELEVATION	76.45 IN 1973
HIGHEST EVER DAILY MEAN ELEVATION	75.75 IN 1973
HIGHEST EVER MONTHLY MEAN ELEVATION	75.71 IN 1973
HIGHEST EVER YEARLY MEAN ELEVATION	75.19 IN 1973

LATEST TEN YEAR AVERAGE ELEVATION

FIRST QUARTER JANUARY 1 TO MARCH 31	74.70
SECOND QUARTER APRIL 1 TO JUNE 30	75.10
THIRD QUARTER JULY 1 TO SEPTEMBER 30	74.94
FOURTH QUARTER OCTOBER 1 TO DECEMBER 31	74.62

AVERAGE INSTANTANEOUS ELEVATIONS

LATEST TEN YEAR AVERAGE	75.35
LATEST FIVE YEAR AVERAGE	75.35
LATEST THREE YEAR AVERAGE	75.38
LATEST TWO YEAR AVERAGE	75.36

NOTE: ELEVATIONS ADJUSTED FROM I.G.L.D. FOR HAMILTON
REGION TO MATCH ORTHOMETRIC ELEVATION (+8cm)

- It should be noted that several residents pump water from basements on a relatively frequent basis. In some cases, it has been observed that water is discharged at the street and flows along the road to the storm water sewers. It is expected that this discharged water is of poor quality and may be contaminated because of the interaction of groundwater with the tile beds.
- The areas where the above conditions occur are between Beach Boulevard and the QEW.

2.4 HAMILTON BEACH FLOOD STUDY

A study to identify the hydraulic and flood damage calculations was undertaken by Dillon Consulting Engineers and Planners. This included determining the expected exposure to flooding from three different sources. The first was directly from Lake Ontario through lake levels, wind set-up and wave run-up. The second considered overland drainage including backflow via storm sewer outfalls and the third dealt with high groundwater levels. The frequency of flooding which could be expected was also taken into account. A damage calculation was then prepared using the Canada/Ontario Flood Damage Reduction Program Report on Flood Damage Curves published in 1985. Following is an outline of the findings:

- plotting of the computed flood levels on contour maps did not identify any houses along the shoreline which could be affected by waves.
- overland flooding could be expected to impact on 3 houses with a 20 year flood frequency; 56 houses with a 50 year flood frequency and 93 houses with a 100 year frequency.
- groundwater flooding could be expected to impact on 154 houses with a 2 year frequency and up to 297 houses with a 100 year frequency.
- the average annual total damages were calculated by considering each type of house and then using the Government publication identified above.
- the theoretical annual total damages was found to range between \$62,000 and \$350,000. In practice, it was felt that the higher figure would never be reached because of the extensive basement pumping practiced by homeowners.
- an additional damage calculation was undertaken only for the overland flooding component, assuming that groundwater seepages are pumped out from all basements. This set of calculations gave an annual total damage of only \$3,100.

2.5 SERVICING OF THE BEACH STRIP

The feasibility of maintaining and providing alternative sanitary sewer systems was investigated by C.C. Parker Consultants Limited, Consulting Engineers. The existing servicing situation was reviewed, policies related to maintaining the existing septic tank system were discussed with local health officials and alternative means of providing a sanitary sewer system were investigated. The following information has been summarized from the background report submitted by the above mentioned firm.

2.5.1 BACKGROUND

The existing Beach Strip development is serviced by Bell, Hydro, Gas and Regional Water. The Region has completed (1987) the construction of a new 300 mm (12") watermain providing a needed upgrading of the existing water distribution system to provide the necessary water supply to the area.

In addition to these services, the main road through the area, Beach Boulevard, has a limited catchbasin system served by underground storm sewers outletting in ditches which run south, eventually draining into Hamilton Harbour. Due to the limited grade difference between the high water level of the Harbour and Lake Ontario (75.6) and the Beach Boulevard road elevation (approximately 77.0) there is not sufficient grade to provide a normal storm sewer system to service the development.

The Beach Strip has no underground sanitary sewer system. The existing development relies on septic tanks and tile beds. A review of the records indicate that cost estimates were made for the provision of sanitary sewers by the City of Hamilton Engineering Department and reported to the Committee on Works in October 1970. The accompanying report to the Committee on Works said "...that a significant amount of bacteria originating in domestic waste water is actually leaching to Lake Ontario along the beaches ... serious consideration must be given to decrease the existing pollution potential".

2.5.2 ENVIRONMENTAL PROTECTION ACT

The Environmental Protection Act is administered by the Minister of the Environment. In the Hamilton Region, the Department of Health Services of the Region, under the direction of the Medical Officer of Health, review and approve the design and construction of septic tank systems in the Region, on behalf of the Ministry of the Environment.

Their jurisdiction is limited to new construction of these systems, or investigations into complaints regarding health hazards or nuisances, caused by septic systems. Systems installed or reconstructed prior to April 15, 1974, are not regulated by the Environmental Protection Act and are not required to meet current regulations. However, adjustments, extensions, etc., to these systems fall under these regulations.

2.5.3 MAINTAINING THE EXISTING SEPTIC TANK SYSTEMS

Since the Environmental Protection Act Regulations do not apply to existing septic systems which have been unaltered since the Regulations came into effect and since most of the existing systems were built prior to that date, as these systems become obsolete, changes and upgrading will fall under these regulations and as such will pose a major problem to the owners. For example, the Department of Health Services of the Region requires that the minimum size of lot on which a private septic system tile bed is to be constructed should be 20,000 sq.ft. (1860 m²), and that the depth from the ground surface over a tile bed to the high ground water level must be a minimum of 1.5m (5'). Most of the existing systems do not meet these minima. For example, lot areas of most of the house lots on the Beach Strip are much less than required to meet the regulations for private septic tank systems.

2.5.4 FUTURE ALTERNATIVES FOR SANITARY SERVICING

It is important that any plan which retains the existing development or contemplates new development on the Beach Strip address the provision of sanitary servicing for the long-term future. Part of this process includes the recognition of the limitations of septic tank systems, and the need to meet current standards of the Environmental Protection Act.

There are two options available if housing is to be maintained on the Beach strip.

SEPTIC TANK AND TILE BED SYSTEMS:

If this method of servicing is selected for future long-term, a program to upgrade the existing systems to meet the minimum standards required by the Regulations of the Environmental Protection Act is recommended. The abandonment of the properties, where area and/or depth above high groundwater cannot be met will require a considerable program of property purchase.

INSTALLATION OF SANITARY SEWERS:

In 1984 the Region constructed a major pumping station and forcemain to serve the East Port Development at Pier 25, which has capacity available to service the Beach Strip development from that point. Facility has been provided in the station to accommodate the additional pump required.

The provision of sewers from this point to the extreme ends (the Burlington Canal to the west, and Woodward Avenue to the east) require approximately 4,000m of sanitary sewer on Beach Boulevard and on the link to East Port. The flat elevation of the entire Beach Strip and the distance to high water table of approximately 1.5m make the installation of gravity sanitary sewers very difficult and expensive, and require some variation from the normal design. Two types of systems are available. These would be gravity sanitary sewers with pumping stations or pressure or vacuum sanitary sewer systems.

Gravity Sanitary Sewers Combined With Pumping Stations - To reduce exposure to infiltration and exfiltration to and from the gravity sewers, and to reduce costs, we suggest a minimum cover on the sewers on Beach Boulevard to be set at 1.83m (6 feet), and that systems served by pumping stations be limited to 600m sections split to drain 300m toward the centre and then to outfall to individual pumping stations south of the developed areas. This places the sewer at a maximum depth of somewhat less than 4m. This is well below groundwater level and therefore requires care in construction to minimize infiltration and exfiltration. Private drain connections will require special consideration in the final design of this type of system.

A total of 6 pumping stations with back-up emergency power will be required, plus a forcemain system linking the pumping stations to the main East Port pumping station.

Pressure or Vacuum Sanitary Sewer Systems - Two innovative systems, i.e. the pressure system and the vacuum system are alternatives which may be acceptable in lieu of the gravity systems described above. It should be noted that they are not used in the Region and are not used extensively in Ontario. They are usually found in much smaller installations than the Beach Strip project would require, and they have drawbacks which the Region may find unacceptable for this installation. However, since they offer considerable savings, they require consideration.

The vacuum system is made up of shallow vacuum lines which can be placed just below frost, above the watertable. One vacuum/pumping station would service the total Beach Strip development, and would be operated by the Region complete with emergency power in case of power failure. A special interface between the vacuum and gravity systems at each private drain connection is required, and is the key to the satisfactory operation of the system.

This type of system is being installed at the 50 Point Conservation Area and Marina, but of a much smaller size than would be required for the Beach Strip.

The pressure sewer system is the reverse of the vacuum system requiring a holding tank and pump to be provided at each private home or building. The system operates in a similar way to a pressurized water supply system, with all sewers operating under pressure. The drawback to this system is that maintenance of the pressure system is by the homeowners, and where problems occur, it may affect the use of the sanitary facilities in that home. A holding tank is used to provide storage in the event of a power failure.

2.5.5 SUMMARY AND RECOMMENDATIONS

The sanitary services on the Beach Strip require upgrading if development is to be retained. In the short term the buy-out policy should be continued for those properties where septic tank tile beds do not have a minimum of 1.5m from the surface to the high groundwater.

For the long term, two alternatives are available:

- Upgrade all septic tank systems to meet the Regulations of the Environmental Protection Act. This will require the purchase of many of the properties to provide sufficient land area to meet the Regulations of the Act, and will result in a less dense development than now exists.
- Install a gravity sewer system with pumping stations to service the entire Beach Strip. This will allow retention of all existing homes, and provide for further development, without significant additional costs. Because of the considerable cost of the gravity system with pumping stations, we recommend consideration be given to the merits of the innovative, less costly vacuum sewer system for the Beach Strip.

The above report was submitted and reviewed by the Engineering Department and by the Department of Health Services of the Regional Municipality of Hamilton Wentworth.

They both agreed with the recommendations that the installation of a municipal sewer system was the only viable long-term solution for the Hamilton Beach area if residential development is to be retained and/or increased.

2.6 RECREATION OPPORTUNITIES

The Hamilton Beach has historically been used as a recreation area by residents of the City and Region. The potential of the area was assessed in the context of other major recreation and tourism initiatives currently being planned for the waterfront areas. The following points are noted.

- The Hamilton Beach is strategically located between Confederation Park and Burlington Beach, two activity nodes, both of which are planned for development as major recreation areas.
- Total shoreline from Brant Street to Confederation Park is approximately 7 miles (11.26km). This could quite feasibly be a continuous public shoreline.

- The Hamilton Beach area itself is well suited to public recreation, especially as part of a linear corridor. The land from the private property limits to the water is approximately 150 feet.
- The length of shoreline from the Canal to Confederation Park is approximately 5.3 miles (8.5km).
- The Canal area is a natural point of interest and could be developed for recreation uses. These include public park, commercial recreation, tourism.
- Possible uses include:
 - commercial - tourist complex
 - entertainment complex (Church Street Station)
 - fishing wharf and restaurants
 - Steel Expo - history of steel making
 - regional tourboat center
 - rubber tire tram or train terminal
 - charter fishing center
 - Upper Canada heritage tour
 - international sculpture garden
 - turn of the century theme hotel
 - waterfront park and marina
- Development of a major attraction in this area would have to compete with other waterfront development projects such as Downtown, Confederation Park, and Burlington Beach.
- The most important role of this public shoreline may be as a link, not a major node. It may be more realistic to anticipate park and linear corridor development rather than major feature, intensive development.
- It is possible to develop adequate access to the Canal zones. However, this may include developing parking on lands not owned by the City or HRCA.
- Access opportunities are provided using the existing road pattern and some of the existing publicly owned vacant lots.
- The final waterfront access requirements will strongly relate to development plans for the backshore areas.
- The existing overhead power transmission lines have a severe impact on the recreation potential of the waterfront areas. It would be preferable for these to be relocated in the long term as it is an inappropriate land use. It is possible to reduce the impact of these lines and towers by landscape development and tree planting along potential pedestrian corridors.

CHAPTER 3:

OUTLINE OF OBJECTIVES AND PLANNING PRINCIPLES

3.0 OUTLINE OF OBJECTIVES AND PLANNING PRINCIPLES

The concept plan which has been developed for the Hamilton Beach has to fulfill a number of objectives. It is also based on several principles which have been derived from the background data, our experience with waterfront, community and recreation planning. In the following pages we have outlined the objectives and principles which have led to formulation of the plan.

3.1 OUTLINE OF OBJECTIVES

A number of related issues must be satisfactorily resolved in order to put forward a plan that is comprehensive and which will provide the basis for informed decision-making. There are many different interests and points of view. A statement of objectives may not cover all of the possibilities. Nevertheless, the following objectives have been defined and are seen to be the most important:

- Establish the best plan for long-term development of the Hamilton Beach area.
- Establish the viability of maintaining a community.
- Respond in an appropriate fashion to environmental conditions which prevail.
- Respond in an appropriate fashion to regional requirements for public access and movement along the waterfront.
- Establish the plan which deals with the economic implications and realities of alternative land uses.

Each of these objectives has been discussed in more detail below.

THE BEST PLAN FOR LONG-TERM DEVELOPMENT

The acquisition of the entire study area may have been seen by some as the best long-term objective when it was developed. It is now clear that it is not practical to achieve nor does it meet current needs. A new plan is needed which will give direction for the long-term redevelopment of the area. It must be realistic to achieve, permit decisive actions to be taken and should help to correct land use mistakes which have been made as the area was settled over the past 100-150 years. The key mistakes

appear to be that too much development occurred without resolving public and private land uses and responding to the inherent capability of this unique land form to sustain the pressures of urbanization.

ESTABLISH THE VIABILITY OF MAINTAINING A COMMUNITY

There is a fundamental question which must be answered in this study. Simply stated - "is it practical to have a community residing on the Beach?" History indicates that there have been permanent residents in the study area since approximately 1910. There is a community at the present time which has clearly indicated (90% of community survey respondents) that it wants to stay and few (6.6% of community survey respondents or 19 households) have indicated any interest in leaving the area. Environmental conditions including flood-related and quality do not preclude permanent residency in the area. Notwithstanding the above, it is equally clear that the present situation is not suitable as a long-term solution. The density of development, lack of sanitary sewers and the fragmented land ownership pattern all contribute to a less than satisfactory situation. If a decision is made to permanently retain a community, then the corresponding steps must be taken to make it as viable and healthy as possible. The land uses must be defined, and forms of redevelopment established. The extent of public and private lands must be resolved. Those lands that are to be public must be developed and managed in an appropriate way. Responsibilities for the maintenance of public lands must also be assigned.

RESPOND IN AN APPROPRIATE FASHION TO PREVAILING ENVIRONMENTAL CONDITIONS

The natural environment has always played an important role in the settlement of the Hamilton Beach. It has not always been responded to in a sensible way. Flooding and concerns related to health caused the acquisition program to be initiated. The extent of the problems caused by flooding are now more clearly understood. These include approximately 100 homes with potential septic tile beds, flooding problems, 154 homes with groundwater flooding on a 2 year frequency and 93 houses with overland flooding on a 100 year frequency. The cost of annual damages appears to be low, however, the potential health problems are significant. The long-term viability of the community cannot be assured without establishing an environmentally compatible

sewage system. It should also be noted that water quality of the surrounding waters of Lake Ontario and the harbour are also most likely affected by the development on the Hamilton Beach.

In terms of air quality, it is now apparent that conditions in the study area are certainly far from excellent, but they are not the worst in Hamilton. All possible efforts should be taken to improve air quality, but this is true for any city. It has now been demonstrated that air quality conditions are the worst immediately adjacent to the QEW and improve away from the highway. This fact should be responded to in land use planning.

RESPOND TO REGIONAL REQUIREMENTS FOR PUBLIC ACCESS TO THE WATERFRONT

Public access to major waterfront areas such as the Lake Ontario shoreline is a desirable objective which has been set by many cities. In the case of the Hamilton Beach, the shoreline is essentially in public ownership already. (Legal questions must still be resolved between the railway and the City of Hamilton.) However, it has not been developed as parkland, nor is it maintained as such. With the type of development areas planned for Burlington Beach and Confederation Park, the 5 mile link between the two is essential and the potential to create a recreational corridor is significant. The area adjacent to the Canal has historical significance and potential to be developed as an activity node as well. If developed, it can be expected that the Hamilton Beach waterfront would be used by local and regional populations. The concept plan must respond to the requirements of these two user groups. In addition, the public and private land uses in the vicinity of the waterfront must be planned to be compatible.

ECONOMIC REALITIES OF ALTERNATIVES

There has been a significant financial investment in the Hamilton Beach area by both public and private sectors. Notwithstanding this, it is apparent that in order to solve the existing problems considerable additional funds will have to be spent. It is most important that the financial implications of pursuing alternative concepts are understood. These include costs of acquisition, servicing, development of public

areas, operations and maintenance. They also include tax revenues which can be expected from different forms of development. Furthermore, the costs must be put in the context of the initial decision taken in 1974 to acquire the entire area.

3.2 KEY PLANNING PRINCIPLES

Several key planning principles which are related to the objectives and background information have been applied in the formulation of the concept plan. The principles are:

- The Hamilton Beach area should be developed as a multiple use area retaining the community and at the same time increasing public waterfront access opportunities.
- New development must be compatible with the existing community in scale and character. It should reinforce the sense of community which exists.
- The predominantly single family character of Beach Boulevard should be respected and strengthened where possible.
- The existing fragmented land ownership pattern should be resolved in a manner that establishes permanent uses for individual vacant properties that have been acquired since 1974. These may include parks and open space, residential or commercial infilling as appropriate.
- Existing environmental conditions should be improved by the development, not deteriorated further.
- A recreational corridor should be developed along the shoreline as a public facility extending from the Canal to link with Confederation Park.
- The Canal area should be developed as a regional recreation facility.
- An open space buffer should be developed adjacent to the QEW. This is to assist with air quality, noise and visual improvements in order that the impact of the QEW on the community is reduced.

ALTERNATIVE CONCEPTS

A number of alternative concepts were developed during the planning process. These included a concept for a small-scale system, a concept for a medium-scale system, and a concept for a large-scale system. Each concept was evaluated in terms of its ability to meet the needs of the community, its cost, and its potential for expansion. The small-scale concept was found to be the most feasible, and it was recommended that it be adopted as the basis for the system.

It should be noted that the concept of a small-scale system was chosen for a number of reasons. First, it was found that a small-scale system would be the most economical and would require the least amount of land. Second, it was found that a small-scale system would be the most flexible and would be able to expand as the community's needs grew. Third, it was found that a small-scale system would be the most reliable and would be able to provide a continuous supply of water. Finally, it was found that a small-scale system would be the most aesthetically pleasing and would blend in with the surrounding landscape.

In order to select from among other alternatives, the key question to be asked is whether or not to build a water supply system. This is an essential decision because it determines whether or not the community will have access to a reliable source of water. If the answer is yes, then the community will be able to meet its needs for water and will be able to expand as its needs grow.

CHAPTER 4:

ALTERNATIVE CONCEPTS

The purpose of this chapter is to present the alternative concepts that were developed during the planning process. These concepts are presented in order to provide the community with the information it needs to make a decision about whether or not to build a water supply system. The concepts are presented in terms of their ability to meet the needs of the community, their cost, and their potential for expansion.

4.0 ALTERNATIVE CONCEPTS CONSIDERED

A number of alternative concepts were considered during the planning process. These included pursuing the total acquisition of the Beach area for parkland, an alternative which would assemble public lands into 1/2 acre estate lots and retain the septic tank systems and a number of re-development possibilities predicated on installation of a municipal sewer system. These alternatives were presented and discussed with the Steering Committee and the public at workshops and public meetings.

It should be noted that the option of continuing the entire acquisition of the area was not pursued once the background studies related to flooding were completed. They indicated that approximately one-third of the properties were subject to flooding, annual damages were not significant and while there are health related concerns with the long-term proposition of maintaining a community on individual septic tank systems, other solutions to the problem are deemed to be feasible. An economic study of this option was undertaken in order that it could be considered in a similar manner to other alternatives. It was concluded that there were not sufficient reasons to continue with the entire acquisition program.

In order to select from among other alternatives, the key question to be decided is whether or not to build a sanitary sewer system. This is an essential decision because according to the Department of Health Services of the Regional Municipality of Hamilton Wentworth, the minimum size required for a new residential lot would be 20,000 square feet. While an existing property owner may be able to repair a system, new infill development could not proceed unless the minimum site criteria were met. In addition, health concerns have been discussed (Chapter 2.3) related to possible groundwater contamination. In order to try and resolve this problem, low-lying properties (approximately 100) would have to be acquired, the buildings demolished, sites filled to a higher elevation and then re-assembled as 20,000 square foot lots. Nevertheless, a concept was prepared and presented which was based on not constructing a sanitary sewer system. The economic implications of this alternative have been investigated.

A number of alternatives have been considered which are based on installing a municipal sewer system. These have included infill with single family lots only and variations which increase the density in some areas. A description of the alternatives which have been considered is outlined on the following pages. An economic study of the implications of these options was prepared as a background report. This document has been reproduced in Appendix 3.

4.1 OPTION 1: TOTAL ACQUISITION AND DEVELOPMENT AS PARKLAND

The option to acquire the remaining private properties and develop the entire site as parkland is considered to be an unjustified approach given public attitudes, anticipated annual damages as a result of flooding, the potential to create a linear recreation system without entire acquisition of properties and the overall costs.

There are approximately 418 properties to be acquired. The cost to the public sector of purchasing these properties has been estimated to be in the range of \$32 million. The costs to develop the site into parkland would be approximately \$5 million with operating and maintenance costs of \$200,000 per year.

It was recommended that this option be rejected.

4.2 OPTION 2: PARTIAL ACQUISITION, SINGLE FAMILY INFILL, RETAIN SEPTIC TILE BED SYSTEM

If the Beach community were to be retained without developing a municipal sewer system it would be necessary to improve environmental conditions. This would be achieved by reducing the potential groundwater contamination which is a result of tile bed installations with less than 5 feet to water table. Approximately 100 properties would have to be acquired. The low-lying land could then be filled and redeveloped. As was previously mentioned, the minimum size of property which would be acceptable is 20,000 square feet. By assembling the above acquired lands and vacant public properties, it would be possible to create 47 new lots suitable for single family development.

This option would also allow a recreation corridor to be developed along the waterfront and an open space buffer adjacent to the QEW. Approximately 300 existing properties would be retained, but these would be on lots which are much less than the 20,000 square feet minimum. The long-term problem of safe sanitary sewage disposal would still exist for the majority (75%) of the residents. The estimated costs to the public sector of acquiring properties is approximately \$6.4 million. The parkland development costs would be a minimum of \$1.6 million for a total public sector cost of \$8 million. Land sales would generate approximately \$2.5 million for a resulting net cost to the public sector of \$5.5 million.

This option does not provide a long-term solution to sewage disposal, would still require the cooperation of at least 100 households to implement and is not considered to be a feasible alternative. It was recommended that this concept be rejected.

4.3 OPTIONS 3, 4, 5: REDEVELOPMENT WITH A MUNICIPAL SEWER SYSTEM

The development of a municipal sanitary sewer system presents many options for developing multiple use concept plans. Three have been considered. These range from infilling with single family only to redeveloping some areas with greater density projects such as low-rise apartments and townhouses. These concepts are described below.

4.3.1 OPTION 3: SINGLE FAMILY INFILL AND SEWER SYSTEM CONSTRUCTION

With the provision of sewers, it would be possible to redevelop approximately 137 new residential units on vacant lands now owned by the public sector. An additional 21 small land areas would be sold to expand existing residential lots. In order to create a buffer adjacent to the QEW, 13 private properties would be acquired over the long term. A recreational corridor would be developed along the waterfront and a landscaped open space buffer would be constructed adjacent to the QEW. The revenues projected from the sale of vacant lands for building lots would be approximately \$5.5 million. Costs of acquiring private properties for buffer areas and for developing the parkland would be approximately \$2.5 million. The net gain to the

public sector would be about \$3 million. In total this option would generate an additional \$220,000 in gross property taxes per year. The property values of existing owners would increase by 15% to 20% as a result of community improvements, the provision of sewers and new residential development.

The cost of sewer system construction is expected to be in the \$7.5 million range. A portion of this could be recovered by the public sector through Local Improvement Act charges which is the normal method used by the Regional Municipality of Hamilton Wentworth. It may also be possible to solicit special financial assistance from senior levels of government because of the unusual nature of the problems.

This alternative would increase the total number of residential units by 124 which would generate between 370 and 430 additional people. It would maintain the character of the area but would not increase the market for commercial services very significantly.

It was recommended that this option be considered further.

4.3.2 OPTION 4: INCREASED DENSITY AND SEWER SYSTEM CONSTRUCTION

A variation of the previously described concept is to encourage some parts of the study area to be redeveloped to greater density levels. This would be accomplished by re-zoning some areas for townhouses and others for low-rise apartments. The areas to be re-zoned would have to be refined through more detailed neighbourhood planning procedures. Areas have been designated for greater density development which make best use of existing publicly owned land and which are compatible with the surrounding land uses.

A total of 37 privately owned residences would be purchased, 13 of which would be by the public sector to create a buffer area adjacent to the QEW. The remaining 24 would be re-zoned and then redeveloped by the private sector. An additional 105 publicly-held properties would be sold for redevelopment. In total, 72 single family lots,

approximately 117 townhouse units and 90 apartment units would be created. This would result in an increase of approximately 240 residential units generating between 720 and 840 additional people.

Under this option, property owners could expect an increase of 15 to 20% in property values. The costs to implement this scheme would be approximately the same as in Section 4.3.1 above (\$2.5 million) and revenue generated from the sale of public lands would be \$5.5 million. The gross property taxes would increase to approximately \$300,000 per year. The population growth would increase the demand for commercial space by 6,000 square feet over the existing situation.

This option strengthens the community by increasing the total population, improves environmental conditions and regional recreation opportunities. It was recommended to be considered further.

4.3.3 OPTION 5: SEWERS AND GREATEST DENSITY INFILL

This variation is similar to the previous one described but would permit more areas to be developed for low-rise apartments and townhouses. It is estimated that 72 single family lots, 57 townhouses, and 248 apartment units would be developed. The overall housing increase would be approximately 353 units generating a population of between 1,050 and 1,235 people. The costs to acquire properties, develop buffer zones and waterfront walkways would be \$2.5 million which would be offset by approximately \$6.5 million in revenue from the sale of properties. This results in a \$4 million gain to the public sector. The costs of servicing would be in the order of \$7.5 million. This scheme would increase gross property taxes by \$380,000 per year. It would also have the greatest potential for additional commercial space, it is estimated that the demand would be in the order of 8,500 square feet.

This option has the same favourable results as the previous scheme. With the greater population generated it perhaps would contribute to strengthening the community further, increasing the extent of services which would be made available by both the public and private sectors. The areas which have been designated for townhouses are

on sidestreets and if designed well could be integrated with the existing buildings. The apartments which would be a maximum of 4 storeys have been located in an area along Beach Boulevard which is not single family character, but has some commercial properties and larger tracts of vacant land.

It was recommended that this scheme be considered further.

2.0 THE RECOMMENDED CONCEPT PLAN

The recommended concept plan has been prepared using the previously discussed Options 2, 4, and 5 and by trying to reach the objectives and principles set out in Chapter 2 of this report. It should be clearly understood that it is a concept plan only, not the final neighbourhood plan. It must be refined following the typical neighbourhood planning process once a decision has been made by Hamilton City Council and the Hamilton Region Conservation Authority to accept the plan in principle.

2.1 KEY FEATURES OF THE PLAN

The key features of the plan are outlined below and are illustrated on drawings Maps 101 and 102.

- The Hamilton Beach community is recommended to be retained and the area further developed accommodating additional housing, retail, and commercial uses.
- It is recommended that a municipal sanitary sewer system be constructed.
- Different types of residential development are proposed including single family infill of existing publicly owned vacant lands, townhouses and low-rise apartments.
- The exact location and density of development is recommended to be decided as a result of the neighbourhood planning process. The concept plan should be used to guide this process.
- The single family infill lots have been created on the average 35-75 lots are included. The exact number and location will be determined when the minimum lot size and individual uses have been decided.
- Townhouse development has been identified in the plan. Area 1 will be 5.5 acres. The lot size will be 30% less than the single family lot size. Area 2 will be 1.5 acres and will accommodate 15 townhouse units. Area 3 is 5.5 acres and will accommodate 30 units of townhouse development.
- Low-rise apartment development has been identified in the plan. Area 2 and Area 3 on the plan. These will accommodate 110 and 50 apartment units respectively assuming 30 units per acre.

CHAPTER 5:

THE RECOMMENDED CONCEPT PLAN

5.0 THE RECOMMENDED CONCEPT PLAN

The recommended concept plan has been prepared using the previously discussed Options 3, 4, and 5 and by trying to reach the objectives and principles set out in Chapter 3 of this report. It should be clearly understood that it is a concept plan only, not the final neighbourhood plan. It must be refined following the typical neighbourhood planning process once a decision has been made by Hamilton City Council and the Hamilton Region Conservation Authority to accept the plan in principle.

5.1 KEY FEATURES OF THE PLAN

The key features of the plan are outlined below and are illustrated on drawings MGA 101 and 102.

- The Hamilton Beach community is recommended to be retained and the area further developed accommodating additional housing, parks, and commercial uses.
- It is recommended that a municipal sanitary sewer system be constructed.
- Different types of residential development are proposed, including single family infill of existing publicly owned vacant lands, townhouses and low-rise apartments.
- The exact location and density of development is recommended to be finalized as a result of the neighbourhood planning process. The concept plan should be used to guide this process.
- The single family infill lots have been located on the concept plan. Approximately 55-70 lots are included. The exact number would be determined when the minimum lot size and individual sites have been evaluated.
- Townhouse development has been designated for Area 1 and possibly Area 2 on the plan. Area 1 totals 5.5 acres. This has been reduced by 30% and then assuming 15 units per acre it would accommodate 57 townhouse units. Area 2 is 5.68 acres and would accommodate 60 units of townhouse development.
- Low-rise apartment development has been designated for possibly Area 2 and Area 3 on the plan. These sites would accommodate 119 and 90 apartment units respectively assuming 30 units per acre.

- It is recommended that only townhouse development be considered for Area 1, whereas a combination of townhouse and apartments be considered for Areas 2 and 3.
- A special study area has been recommended for both sides of Beach Boulevard from approximately Arden Avenue to Kirk Road. This entire area should be designed as a unit. Decisions made on one side of the roadway should be responded to on the other side. Residential growth may require increased beach access opportunities and new commercial development which can be integrated into a mixed use concept for the area.
- In order to improve environmental conditions, a buffer zone has been recommended in the area immediately adjacent to the QEW. It is recommended to acquire 14 private properties in this area and to landscape the zone leaving it free from development. The buffer could be used as a servicing corridor and for stormwater management.
- It is recommended that a continuous pedestrian "Breezeway" be developed as a recreation corridor linking the canal with Confederation Park (see drawing MGA-102).
- The Breezeway should include separate circulation systems for pedestrians and bicycles.
- In locations where the Breezeway system is located adjacent to private residences, the property limits should be defined by fencing, planting or a combination of the two.
- Access to the Breezeway system for the regional population should be encouraged at both extremities of the system. Developing parking lots at the Canal, and at both ends of the QEW open space buffer would accomplish this. Both of these are recommended.
- Access to the waterfront from within the Beach community and from Beach Boulevard would be via existing sidestreets and by developing selected existing publicly owned lots as waterfront access points.
- Considering long-term planning objectives, it is further recommended that a number of residential properties (approximately 30) be acquired with a willing seller/willing buyer arrangement. This would help to achieve an adequate degree of public access to the waterfront from backshore areas. It should be stressed that this would be a long-term goal. These areas are located at either end of the project and in areas proposed for greater density redevelopment.
- Special consideration should be given to the relationship between the Breezeway and commercial nodes. An opportunity is created to expand the commercial development in such a manner that both lakefront users and business owners would benefit.

- Undeveloped land adjacent to the Canal and underneath the Skyway Bridge should be developed as open space, parkland and possibly for tourist related uses. These lands are owned by a number of different parties including the Hamilton Harbour Commission. These owners should be encouraged to rehabilitate these lands as they have considerable visual impact on the Hamilton Beach community.
- The existing concrete pier creating an edge to the Canal should be upgraded in recognition of the role that it plays in terms of recreation and tourism. Parking facilities, walkway connections, seating and landscaping should be improved.
- Consideration should be given to creating a tour boat docking facility in this location. This would be extremely important when other sections of the waterfront lands in Burlington and Hamilton have been developed.

The recommended concept plan provides a basis for resolving the uses of the Hamilton Beach area. It reconciles public and private waterfront access, increases regional waterfront park opportunities, establishes a way to retain a viable community, and improves environmental conditions. While not all residents have expressed complete satisfaction with all recommendations it is believed to have a high degree of community support. In terms of cost, compared with the estimated \$37 million to acquire the entire area and develop it as parkland, the concept plan would generate revenues from the sale of land owned by the public sector which would very much help to offset the costs of servicing. Additionally, more yearly property taxes would be generated from this area if the concept plan is accepted than if it were solely used as parkland.

It is recommended that the concept plan be accepted in principle by the Hamilton Region Conservation Authority and the City of Hamilton.

CANAL PARKLAND

DEVELOPMENT AS REGIONAL
FEATURE AND PART OF THE
"BREEZEWAY" SYSTEM

LONG TERM ACQUISITION TO
CREATE WATERFRONT ACCESS

"BREEZEWAY"

-PEDESTRIAN LINK CONNECTING
CONFEDERATION PARK AND
BURLINGTON BEACH
WATERFRONT AREAS

SPECIAL STUDY AREA

-MIXED RESIDENTIAL, AND
COMMERCIAL USES
-APARTMENTS AND TOWNHOUSES
TO BE CONSIDERED
-POSSIBLE LONG TERM LAND
ACQUISITION ON WATERFRONT
-NEIGHBOURHOOD PLAN
REQUIRED TO RESOLVE
SPECIFICS

LONGTERM ACQUISITION AND
PARK DEVELOPMENT

"BREEZEWAY" CONNECTION TO
CONFEDERATION PARK

PRIVATE LAND

HAMILTON HARBOUR
COMMISSION TO BE
ENCOURAGED TO UPGRADE
AS PARKLAND AND/OR
TOURIST ATTRACTION

TOUR BOAT DOCKING
FACILITY

QEW

BUFFER AND PARKLAND
-PROVISION OF PARKING

AREA 1

5.5 ACRES
- 30% = 1.7 ACRES
15 UNITS/ACRE = 57 TOWNHOUSE UNITS

TOWNHOUSE INFILL AREA

-SPECIFIC BOUNDARIES TO
BE DEFINED BY NEIGHBOURHOOD
PLAN

AREA 2

5.68 ACRES
- 30% = 3.98 ACRES
OPTION 4 : TOWNHOUSE 15 O/P/A = 60 UNITS
OPTION 5 : LOWRISE APARTMENTS 150

TOWNHOUSES OR LOW RISE
APARTMENTS

AREA 3

4.4 ACRES
- 30% = 3.08 ACRES
30 UNITS/ACRE = 90 UNITS
LOW RISE APARTMENTS
OPTION 4 OR 5

LOW RISE
APARTMENTS

LEGEND:

- PROPOSED LONG TERM ACQUISITION
- PROPOSED SINGLE FAMILY INFILL
- PROPOSED WATERFRONT ACCESS
- A - EXISTING SIDEROADS
- B - PARK
- TOWNHOUSE INFILL AREA
- COMMERCIAL
- PROPOSED BREEZEWAY SYSTEM
- QEW BUFFER ZONE



HAMILTON
REGION
CONSERVATION
AUTHORITY



scale
250 0 500m

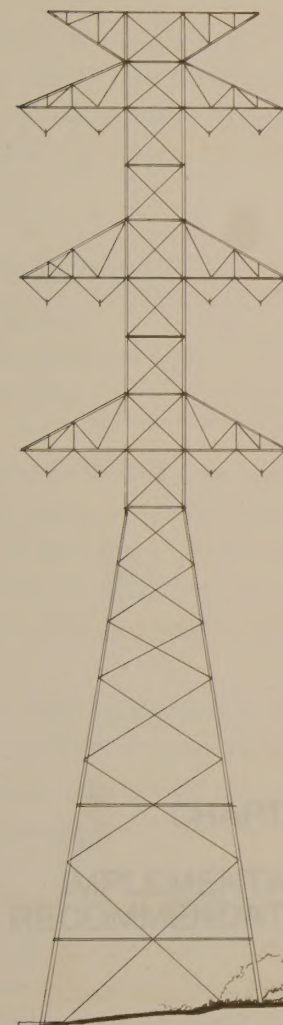
date
July 1987

dwg. no.
MGA-101



MOORE/GEORGE ASSOCIATES INC.
site planners, landscape architects, leisure planners

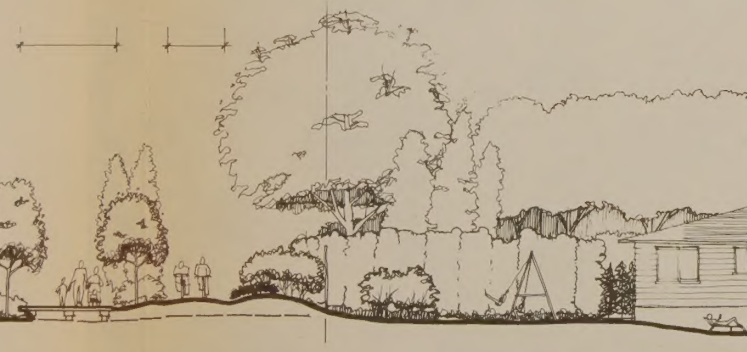
RECOMMENDED CONCEPT PLAN HAMILTON BEACH



"BREEZEWAY" :
SECTION AT RESIDENTIAL AREA

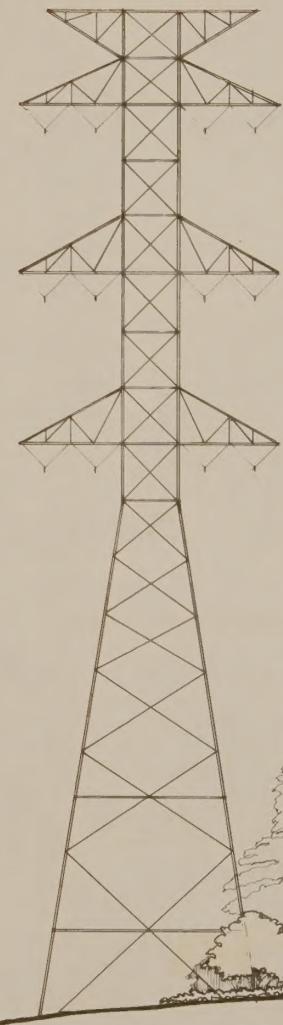
PEDESTRIAN BIKEWAY
WALKWAY

PRIVATE PROPERTY



5m
typical

3m
min

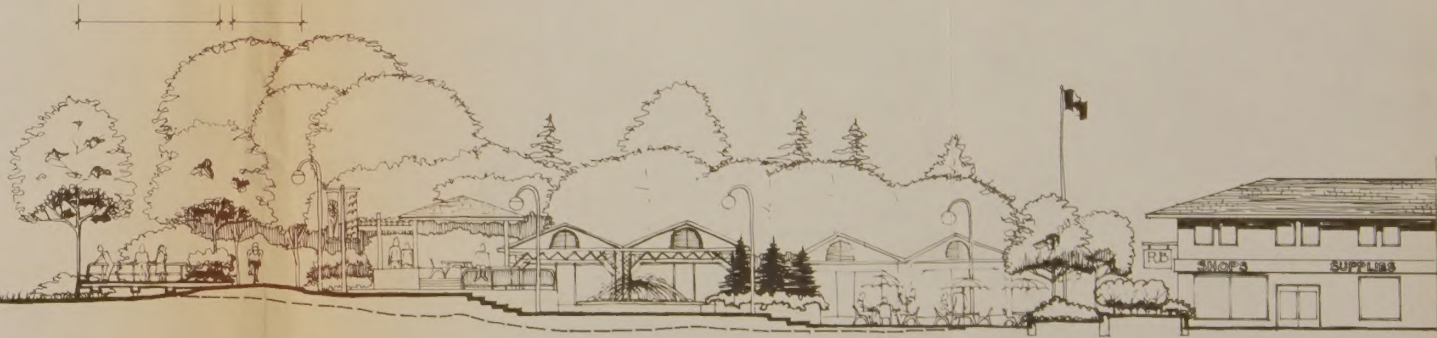


"BREEZEWAY" :
SECTION THROUGH COMMERCIAL NODE

PEDESTRIAN
WALKWAY
BIKEWAY

POTENTIAL EXPANSION OF COMMERCIAL/TOURIST FACILITIES

EXISTING COMMERCIAL



varies

3m
min



HAMILTON BEACH

SCHEMATIC SECTIONS THROUGH 'BREEZEWAY'

scale
0 5m

drwg. no
MGA-102



CHAPTER 6:

CHAPTER 6:

IMPLEMENTATION RECOMMENDATIONS

IMPLEMENTATION RECOMMENDATIONS

6.0 IMPLEMENTATION

The Hamilton Beach concept plan preparation and its acceptance in principle will be initial steps towards implementation. There are several other aspects to be worked out, policy decisions to be made and planning and design work to be undertaken. Many of the issues to be resolved are complex and may involve special considerations for which precedents are limited. We have presented the different implementation tasks that can be defined at this time.

6.1 PLANNING AND DESIGN PROCEDURES

6.1.1 OFFICIAL PLAN POLICIES AND ZONING CHANGES

The Official Plan for the City of Hamilton designates the entire study area as Open Space and subject to the provision of a Special Policy Area.

The Special Policy Area for the Hamilton Beach (Section 2.9.3.8) directs Council to undertake a Master Plan for the area for water-oriented and open space recreational uses. This policy is based on the continued acquisition of the private residential properties, and calls for the identification and location of recreation facilities, public access to the lakefront, circulation and access, and shoreline protection measures.

The Hamilton Beach is identified in the Official Plan as a Planning Unit. A Neighbourhood Plan is required prior to the development or redevelopment of a Planning Unit if the proposed redevelopment will substantially alter the pattern of land use. A Neighbourhood Plan is not required where redevelopment is in the form of infill.

In order to implement a land use concept for the Hamilton Beach which would permit the residential community to be retained and stabilized, an open space system to be developed along the lakefront, and mixed use infill development, an Official Plan amendment will be required. A Neighbourhood Plan should be prepared as the proposal concept is a change to the existing pattern of land use and redevelopment would be primarily in the form of infill. However, the present study might be considered to provide the basis for a Neighbourhood Plan if one is required.

A Residential designation of the portion of Hamilton Beach which is not part of the linear lakefront park system would appear to be an appropriate policy change in order to implement a mixed use concept. This designation appears to allow a variety of unit types and densities, local parks (less than .4 ha), schools, churches, home occupations and limited groups of commercial uses of up to .4 ha in accordance with the local and General Commercial policies of the Plan. The Official Plan amendments should be defined once the Neighbourhood Plan has been completed.

ZONING ANALYSIS

The Zoning By-law for the City of Hamilton designates most of the Hamilton Beach study area as Single Family Residential. The beach frontage from a line just south of the CNR right-of-way is zoned for Conservation, Open Space, Park and Recreational uses. Within the developed portion of the beach there are four small scattered blocks of Neighbourhood Commercial zoning, and five larger parcels of Commercial zoning.

The present zoning of the Hamilton Beach study area reflects the existing uses, but is not sufficiently flexible to encourage a stable growing mixed use community. The single family residential zoning which covers most of the Beach is too restrictive to permit infill development in multiple low-rise forms. The Commercial zoning which covers five fairly large blocks of land is sufficiently broad in its density and use to allow operations which could create traffic and noise problems for adjacent residential uses. It is recommended that the zoning changes be undertaken with completion of the Neighbourhood Plan and Official Plan amendments.

6.1.2 ENGINEERING STUDIES AND INVESTIGATIONS

The detailed planning and design of the optimum servicing scheme should be initiated by the Regional Municipality of Hamilton Wentworth as soon as possible. Preliminary work undertaken as part of the concept plan has indicated that the high water tables in the Beach area may create unknown and unusual construction problems ultimately increasing the cost of sanitary sewer installation.

6.1.3 SITE PLANNING AND DESIGN OF THE WATERFRONT BREEZEWAY SYSTEM AND THE QEW BUFFER ZONE

A design plan should be prepared for the waterfront walkway system, the Canal area and the QEW buffer area which is coordinated with the Neighbourhood Plan preparation. This should finalize the area requirements, links to the community, design treatments, methods of landscape construction, cost estimates and phasing considerations.

6.1.4 PROPERTY BOUNDARY SURVEYS AND MAPPING

In order to be able to finalize a Neighbourhood Plan, the exact ownership and boundaries of lots must be determined and plotted on a suitable base plan. This process will involve considerable data research and documentation to define the actual sizes of existing public and private lands.

6.2 LAND ACQUISITION AND DISPOSITION

The concept plan has recommended that some privately owned lots be acquired on environmental grounds and some to increase the long-term waterfront access opportunities. It is recommended that all properties to be acquired should be on a willing seller/willing buyer arrangement. The lands adjacent to the QEW would be a higher priority because these are related to improving environmental conditions. Two possibilities should be considered. Purchase of these homes (14) at market value is one option. A second would be to relocate these homes to other more suitable vacant properties which are already owned by the public sector. This would involve establishing the technical feasibility of moving the structures, determining a cost-sharing arrangement and, of course, negotiating suitable agreements with the existing property owners. The same two approaches could be considered for properties along the waterfront side of Beach Boulevard.

Public lands to be sold include lots for redevelopment and properties which are too small to allow single family residential development. The concept plan has identified both but these will still be refined as the Neighbourhood Plan is completed.

Some of these lands were acquired by the Ministry of Transportation and Communications and some by the Conservation Authority funded in part by the Ministry of Natural Resources. In order to dispose of these lands it is our understanding that an Order in Council approval must be obtained. Any disposal requires the Minister's recommendations before it will be considered by Cabinet. It is not known if this process must be completed for each property, if each Minister must approve of the individual sales, or if arrangements can be made to deal with this aspect of implementation in a more efficient manner. A method must also be established to determine the value of properties to be sold (serviced or unserviced price), and the value and method of disposing of the remnant lands too small to build on.

Steps should be taken to establish the Provincial Government's role and the necessary procedures to allow this aspect of the implementation process to proceed concurrently with final plan preparation.

6.3 FINANCIAL ASPECTS

6.3.1 DEVELOPMENT COST ESTIMATES

There are a number of financial aspects which must be resolved as part of the implementation process. We have outlined the capital development costs which are very preliminary estimates as the scope of the concept plan has not included design studies. These must be updated as the planning and design work previously identified is carried forward.

OUTLINE OF DEVELOPMENT COSTS

Gravity Sewer System With Pumping Stations

Sanitary sewer including sewer main,
services to street line, dewatering

Beach Boulevard	\$3,200,000
Sidestreets	1,800,000
Street restoration	500,000
Pumping stations and force mains	2,000,000
Total Cost - Sewer Construction	\$7,500,000

Development of Linear Waterfront Park and Walkway System

Walkway construction	\$810,000
Site restoration	450,000
Park amenities, seating, overlooks	204,000
Tree planting and landscaping	540,000
Signs	25,000
Parking lot construction	200,000
Visitor service centre at Canal	350,000
Shelters and structures	120,000
Total Cost	\$2,699,000

Development of QEW Open Space Buffer

Site upgrading and minimum landscape improvements	\$400,000
TOTAL OF PRELIMINARY ESTIMATES	\$10,599,000

6.3.2 FUNDING OF PROJECT COSTS

It has been estimated that the sale of publicly owned properties would generate revenues in the order of \$5.5 million. These funds would in fact only be realized with the sale of all properties and it is realistic to expect that this would occur over an extended period of time. Discussions must be held with the appropriate levels of government to determine if these revenues in principle can be used to offset the project development costs.

It is normal practice for sewers to be installed under the Local Improvement Act. Owners are expected to pay a charge which was \$134 per meter of frontage in 1986. They also pay the connection charge of approximately \$800 each. These charges can be paid over a 15 year period.

The funding of this special project will have to be negotiated with senior levels of government, taking into consideration the environmental problems, long-term Provincial government involvement with the area and the affect which this may have had on property values.

The Province of Ontario has been assisting with the purchase of properties in the Beach area since 1975. It is recommended that attempts be made to retain this assistance for future acquisitions. The properties which have been recommended for acquisition (or relocation) adjacent to the QEW may be eligible for funding under the Flood Control-Capital Projects administered by the Ministry of Natural Resources. If funding were available, it would be at a 55% grant rate.

Funding for the acquisition of properties and for the development of the waterfront walkway may be possible through the Conservation and Recreation Land Management Program also administered by the Ministry of Natural Resources.

It may also be possible to solicit funds to help with community improvements by using the PRIDE program through the Ministry of Municipal Affairs.

APPENDIX 1
STEERING COMMITTEE MEMBERS

MEMBER LIST

Alderman Reg Wainwright

Linda Marshall

Alderman Stanley Cuthbert

Alderman Gerry Coker

Alderman Dave Cunningham

Councillor Stanley Taylor

Councillor Patricia Richardson

Al Stacey

Gill Simmons

Eric Dutton

Jerry Ireland

Bob Chrysdon

David Godley

APPENDIX 1 STEERING COMMITTEE MEMBERS

HAMILTON BEACH STEERING COMMITTEE

Alderman Reg Wheeler

Linda Marshall

Alderman Shirley Collins

Alderman Gerry Copps

Alderman Dave Christopherson

Councillor Stanley Napper

Councillor Patrick Richardson

Al Stacey

Gill Simmons

Eric Britton

Jane Ireland

Bob Chrystian

David Godley

Chairman

Vice Chairman (Resident of Hamilton Beach)

Hamilton Region Conservation Authority Member

Resident of Hamilton

Resident of Hamilton Beach

Ministry of Natural Resources

HRCA Staff Person

Planning Department Staff Person

APPENDIX 2
TERMS OF REFERENCE

Approved by the
Planning Commission
for the Council

Appendix

The City of Montreal has the honor to acknowledge the receipt of the letter of the 15th of March 1964 from the Commission of the City of Montreal regarding the acquisition of the land situated at the intersection of the Boulevard de la Montagne and the Boulevard de la Concorde. The Commission has the honor to inform the City of Montreal that the acquisition of the land is being carried out by the Commission of the City of Montreal and that the City of Montreal is not required to contribute to the cost of the acquisition.

The Commission of the City of Montreal has the honor to inform the City of Montreal that the acquisition of the land is being carried out by the Commission of the City of Montreal and that the City of Montreal is not required to contribute to the cost of the acquisition.

The Commission of the City of Montreal has the honor to inform the City of Montreal that the acquisition of the land is being carried out by the Commission of the City of Montreal and that the City of Montreal is not required to contribute to the cost of the acquisition.

APPENDIX 2 TERMS OF REFERENCE

The Commission of the City of Montreal has the honor to inform the City of Montreal that the acquisition of the land is being carried out by the Commission of the City of Montreal and that the City of Montreal is not required to contribute to the cost of the acquisition.

The Commission of the City of Montreal has the honor to inform the City of Montreal that the acquisition of the land is being carried out by the Commission of the City of Montreal and that the City of Montreal is not required to contribute to the cost of the acquisition.

Terms of Reference
Preparation of a Concept Plan
for the Hamilton Beach

Introduction

In 1975 the Province of Ontario through the Hamilton Region Conservation Authority agreed to participate with the City of Hamilton in the acquisition of properties along the Hamilton Beach between the Confederation Park boundary on the east, and the canal on the west. The City of Hamilton first initiated the acquisition project as a result of public pressure to eliminate problems caused by flooding, erosion and septic tank malfunctions. For similar reasons, the 1974 Halton-Wentworth Waterfront Study recommended that the entire Beach be acquired for open space and recreation purposes.

The decision by the Conservation Authority and the Province to participate with the City in this project required the signing of a three party agreement outlining the respective responsibilities of the affected parties. The basic provisions of the agreement are as follows:

The Authority to purchase all Beach properties (save and except properties to be acquired by the Ministry of Transportation and Communications for road widening purposes) with the City of Hamilton Real Estate Department to act as the Authority's agent.

All properties to be leased back to the City immediately after acquisition.

The City to pay rent equal to realty taxes (which the Authority is required to pay by virtue of it owning the lands).

- . The City to be responsible for demolishing all buildings within 90 days of the leasing of the property except buildings identified by LACAC as having architectural or historical significance.
- . The City to make site improvements to leased properties, e.g. levelling, seeding, barricades, etc.
- . The City to maintain leased properties.
- . The City to develop leased lands for open space and recreation in accordance with a master development plan. The Authority and the City are both responsible for the development of such a plan. No time limit for the preparation of a plan was set.

With reference to the master development plan, the acquisition program began with the understanding that the entire Beach would be acquired and that the matter of detailed master planning would be more appropriately addressed during the final stages of the acquisition phase.

However, since 1980, several issues and concerns have surfaced which cannot be resolved without having the benefit of a master development plan, or at least a plan which outlines basic development concepts. These issues and concerns are summarized in the "Background" section of these Terms of Reference. In view of these issues and concerns, the Conservation Authority, the City of Hamilton and the Provincial Government deemed it appropriate to re-evaluate the present Beach project and decided therefore to invite proposals from qualified consulting firms (or a consortium of firms hereinafter referred to as "consultant") to assist in this re-evaluation process by undertaking the

preparation of an overall Beach concept plan. The main purpose of this undertaking is to develop a long term acquisition and development strategy for the Beach keeping in mind the basic project objectives of the acquisition program, i.e. to resolve flooding and erosion problems and to develop existing and future acquired property acquisitions for open space and recreation purposes. In this connection, the consultant is to consider the possibility of a mixed land use as an alternate long range strategy as long as the project objectives are not compromised. Further, all three parties agreed that it would be in the best interest of the project to establish a steering committee to work closely with the consultant on a regular basis throughout the plan preparation period. Steering committee members will represent the Conservation Authority, the City and Region, the Province, public at large, and the Beach community.

Background Information

to assist those consultants interested in submitting a proposal in understanding the project more fully, the following provides a summary of project statistics as well as issues and concerns which have surfaced since the project started is provided.

. At the outset of the acquisition program, 685 residential and commercial units occupied the 187 acre Beach community. Of this number, the Ministry of Transportation and Communications was expected to purchase 135 homes thus leaving 550 to be acquired by the Hamilton Region Conservation Authority. To date, the Ministry of Transportation and Communications has acquired approximately 95 properties. One hundred and seventy four properties have been acquired by the Hamilton Region Conservation Authority. Between the Ministry and the Authority, 39% of the residential and commercial units have been acquired.

2. During the period 1976 to 1985, approximately \$4,000,000 has been spent by the Authority on acquisitions (at an estimated average cost of \$22,900 per property or \$114,000 per acre which includes legal, negotiation, security, demolition, and site restoration. The annual breakdown of acquisition expenditures is as follows:

1976	\$ 56,500	1981	\$545,000
1977	600,000	1982	467,000
1978	600,000	1983	163,636
1979	600,000	1984	200,000
1980	600,000	1985	100,000 (200,000 budget)

The total Provincial contribution to date is + \$2,080,000 based on a level of involvement ranging from 50 to 55 percent.

During the initial four year period of the program, acquisitions occurred in a relatively straight forward manner and in compliance with the previously agreed to terms of the three party agreement.

The City is responsible for property maintenance which involves site clean up and grass cutting. In order to minimize costs in this area during the acquisition phase, the City in 1980, requested the Authority to consider the merits of leasing lands to adjoining landowners for their private use. While this suggestion was rejected by the Authority and the City Real Estate Department, the cost of maintenance increases annually and the level of service is of concern to local residents.

In 1982, a Beach Implementation Task Force was established to deal with a variety of issues affecting property maintenance, building renovations and expansions, etc. The Task Force consisted of two Beach residents and one senior representative of the City, the Region and the Authority. After four meetings and successful resolution on several points, the committee was disbanded.

Reduced Provincial funding together with higher property values for the remaining privately held lands make it impossible to achieve completion of the acquisition phase by the year 2005 as initially projected..

Twenty-two residences have been identified by LACAC as being of architectural or historical significance.

The City has indicated concern regarding the policy on demolition of residences purchased by the Authority on the premise that certain residences may be habitable and should therefore be offered for public occupancy on a lease basis.

Public opinion is changing and Beach residents in particular have voiced opposition to the present policy to acquire the entire Beach community.

In December 1984, the Conservation Authority requested an outside consultant to provide an opinion on how a mixed use development concept, i.e. open space and recreation and residential could work. This report indicates that a mix of land uses would not necessarily be an obstacle to a viable urban waterfront park. The report did not however address the issue of flooding and erosion.

11. The City of Hamilton and the Regional Municipality of Hamilton-Wentworth have requested the Authority to limit property acquisitions to "hardship" cases until a Master Development Plan is completed.

Study Objectives

The basic objectives of this work are:

1. To identify and evaluate conceptual development alternatives for the Hamilton Beach including consideration of a mixed use development with the emphasis on mitigating existing flooding and erosion problems and maximizing the potential for waterfront access and enjoyment through the development of existing and yet to be acquired properties for open space and recreation purposes.
2. To determine a preferred conceptual development plan for the Beach complete with the necessary written documentation, to establish areas of acquisition interest and acquisition priority, a capital development plan with implementation strategy for lands to be in public ownership, maintenance and operational responsibilities for publicly held lands and, if applicable, an implementation strategy including land use and development guidelines for privately held lands not proposed for public acquisition.
3. To provide opportunities for public involvement in the preparation of the plan to ensure broad public project support.

Study Area

The area referred to as the Hamilton Beach encompasses the Lake Ontario waterfront from the Burlington Canal eastward to the west limit of Confederation Park, between the water's edge and the Q.E.W. A map of this area showing lands already purchased by the Conservation Authority, is attached.

Specific Project Tasks

- . The consultant shall become familiar with the Hamilton Beach as a whole and its urban environs and be aware of other waterfront projects in the immediate vicinity including Confederation Park, the Burlington Beach and the proposed Hamilton west harbour development.
- . The consultant shall review all available background information pertinent to the Hamilton Beach before commencing preparation of alternative concept plans and prepare a background report on the information referred to.
- . In conjunction with the steering committee, the consultant shall prepare a list of items to be addressed in the formulation of conceptual plan alternatives. The list will include but not necessarily be limited to the following:

- flooding and erosion problems
- waterfront access and related open space and recreational requirements
- servicing and health related matters
- existing land ownership pattern
- architecturally or historically significant buildings identified by LACAC
- recreational uses that may be appropriate for the area
- the potential client/user group.
- period of time and financial implications to achieve plan implementation.

Based on the list compiled under paragraph 3, the consultant shall prepare no less than three conceptual development alternatives for the Beach, and in conjunction with the steering committee evaluate the relative merits of each. The evaluation shall take into account various factors including but not necessarily limited to the following:

- effectiveness in resolving flooding, erosion and health related matters
- servicing requirements
- potential for maximizing access to the waterfront for recreation and open space
- land acquisition requirements and costs
- maintenance and related costs
- the potential for private investor interest
- time frame for achieving plan implementation
- public support for the proposal.

In conjunction with the steering committee, the consultant shall develop a preferred concept development plan for the Beach with the necessary written documentation on the full range of items considered pertinent to the overall success of the project.

Plans and text should be in sufficient detail and format to satisfy the requirements of an Official Plan Amendment as it is anticipated that the preferred concept plan may not conform precisely with existing Official Plan policies.

The consultant shall conduct an effective public participation program including questionnaires and develop appropriate measures for obtaining input from Beach residents including questionnaires at key stages of the plan preparation process.

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is anticipated that a consultant will be engaged by the Conservation Authority in early 1986. The selected consultant will be expected to complete the study within a period of 6-8 months.

tings

During the study process, the consultant will be required to meet regularly with the steering committee to report progress, receive direction and to generally satisfy the requirements of the project. It is expected that this will involve at least six meetings. In addition, the consultant will be required to attend

and present material to at least two meetings of the Conservation Areas Advisory Board and two meetings of the City of Hamilton Planning and Development Committee. The final plan will be presented to a combined meeting of the Full Authority and Council for the City of Hamilton. Lastly, the consultant will be required to attend whatever meetings are required for the public participation component of the project.

The above outline of meeting requirements is an estimate only. Should any additional meetings be required the consultant will be expected to attend these meetings without remuneration.

Consulting Agreement

The selected consulting firm will be required to enter into an agreement with the Conservation Authority specifying the terms of reference, consulting fee schedules, upset limit (if applicable), and time schedule or flow chart.

Submissions

The Authority requires 25 copies of all interim reports, plans, drawings, etc., and 30 copies of the final Concept Plan complete with maps, schedules, appendices, etc. A set of sepia of all drafting undertaken in conjunction with the final Concept Plan is to be submitted to the client at the completion of the study.

Proposal Submissions and Fees

Only consulting firms experienced in recreation/land use planning with particular emphasis on waterfront development are requested to submit a proposal.

The proposal should be submitted based on a total, all inclusive, budget of \$50,000. A cost breakdown is to be included covering the following:

- preparation of Concept Plan alternatives
- preparation of preferred Concept Plan
- meetings with steering committee and Conservation Areas Advisory Board and City Planning and Development Committee
- public participation component
- sub-consultants' fees
- report preparation
- report printing and binding
- disbursements and contingencies.

Proposals should be brief but in sufficient detail to indicate our firm's creative ability and potential for successfully achieving the requirements of this very challenging project.

Consultant's Qualifications

Within the proposal, the consultant shall indicate the principal(s) of the firm or firms, the composition and numerical size of the firm(s), location of head office and branch office, the length of time the principal(s) have been in practice, the

qualifications and experience of the firm or firms, by personnel who will be included with this project and the length of time each staff member has been employed with the firm(s). The proposal shall identify the project manager and clearly state the qualifications and experience of said individual. In addition, the proposal shall include a list of the firm's or firms' experience relevant to their ability to complete this study.

Existing Information Available

The Conservation Authority will endeavour to make available to the selected consultant the following information:

- 1) the Hamilton-Wentworth Waterfront Study, 1974
- 2) the Confederation Park Master Landscape and Development Plan 1985
- 3) the Wild Waterworks Feasibility Study, Confederation Park, 1982
- 4) Report by Moore/George Associates Inc., 1985 being a Review of Existing Policy and Future Considerations for the Hamilton Beach Strip
- 5) Conservation Authority minutes of meetings and staff reports.
- 6) A report entitled Background Data for Hamilton Beach Study.
- 7) Official Plan for the Beach Strip, City of Hamilton Planning Department, December 1969.
- 8) A report entitled Hamilton Beach in Retrospect by W.K. Cain, (Project Manager), summer 1981.

ing receipt of the proposals, Authority staff will contact
ed consultants for the purpose of arranging an interview with
ng committee members and Authority and City staff.

nservation Authority reserves the right to accept or reject any
l proposals and to amend, vary, or negotiate any items of these
of reference, generally or with any individual consultant who
mitted a proposal.

ministrative purposes, Mr. Robert Chrystian, Authority staff,
ervice as co-ordinator for this project. Mr. David Godley,
ng Department, Region of Hamilton-Wentworth, will serve as
ate and will work with the co-ordinator to ensure proper liaison
ne City of Hamilton.

ditional information or other enquiries, please contact Mr.
W. Chrystian, Director of Planning & Engineering, Authority
strative Office, Ancaster - telephone (416) 525-2181. -
atively, Mr. Godley may be contacted at City Hall, Hamilton,
29.

d January 24, 1986

- 9) A report entitled Preserving the Residential Character of Hamilton Beach by R. Mendelson, (Project Manager), July 1982
- 10) Community Profile - Hamilton Beach Planning Neighbourhood by R. Van Louve, Social Planning and Research Council, May 1982
- 11) City of Hamilton Official Plan, Region of Hamilton-Wentworth Planning Department
- 12) Staff reports to the City of Hamilton Planning and Development Committee dated July 30, 1985 (Beach Study), October 21, 1985 (Beach Study), December 3, 1985 (Terms of Reference), January 6, 1986 (Steering Committee composition)

Any other relevant material that may become available

Deadline for Proposals

The consultant shall submit ten (10) copies of his proposal to the

Hamilton Region Conservation Authority

P.O. Box 7099

838 Mineral Springs Road

Ancaster, Ontario L9G 3L3

Attention: Mr. B.W. Vanderbrug

General Manager

on or before

Monday, March 10, 1986, 1:00 p.m., local time.

ECONOMIC IMPLICATIONS OF
HAMILTON BEACH STUDY OPTIONS

PREPARED FOR
HARRIS/PERKINS ASSOCIATES INC.

AS INPUT INTO A STUDY

FOR THE

HAMILTON BEACH CONSERVATION SOCIETY

APPENDIX 3
ECONOMIC IMPLICATIONS OF
HAMILTON BEACH STUDY OPTIONS

1. INTRODUCTION AND SCOPE
2. DESCRIPTION OF STUDY
3. BASIS FOR ANALYSIS
 3.1 General Assumptions
 3.2 Detailed Assumptions
4. CONCLUSIONS

ECONOMIC IMPLICATIONS OF
HAMILTON BEACH STUDY OPTIONS

PREPARED FOR
MOORE/GEORGE ASSOCIATES INC.

AS INPUT INTO A STUDY
FOR THE
HAMILTON REGION CONSERVATION AUTHORITY

June 3, 1987

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1.	INTRODUCTION AND APPROACH	1
2.	DESCRIPTION OF OPTIONS	2
3.	BASIS FOR ANALYSIS	
	3.1 General Assumptions	4
	3.2 Detailed Assumptions for Each Factor	5
4.	CONCLUSIONS	10

INTRODUCTION AND APPROACH

The Hamilton Region Conservation Authority has retained Moore/George Associates Inc. to prepare and evaluate development options for the Hamilton Beach Area as part of the preparation of a Concept Plan for that area. The firm of C.N. Watson and Associates Ltd. was engaged as a sub-consultant to establish the economic implications of the options under consideration, as they affect the parties directly or indirectly involved.

To evaluate the economic implications of each of the options, a framework for analysis was developed to illustrate the impact on existing Beach Area residents and on the public sector (Conservation Authority, City, Region and Provincial Government). The nature and extent of the economic impacts will be considered in terms of seven economic impact factors: market value for existing properties, cost/benefit to public sector, property taxes, land ownership, business incomes and jobs, housing needs and municipal services.

The focus of the economic impact analysis is on the differences between the existing situation and the development options, in order to facilitate the identification of impacts rather than on the calculation of total values, taxes, etc.

2. DESCRIPTION OF OPTIONS

2.

The five options, that have been formulated, range from total acquisition of all private property for parkland development to a more intensive residential development, to be encouraged through the installation of sanitary sewers, consolidation of parcels and rezoning. The options to be evaluated are as follows:

1. Total Acquisition and Park Development

Option 1 would require the purchase of the 418 private properties remaining in the area. Of these, 400 are residential. The strip would then be developed into approximately 255 acres of parkland that would include a boardwalk and waterfront promenade, visitor services, restrooms and a multi-purpose tourist attraction.

2. No Services, 1/2 Acre Lot Infill

Because the area does not have sanitary sewers, the minimum building lot size is half an acre. Under Option 2, a further 100 private properties would be acquired. With the total land assembly, 47 half-acre building lots would be created for single detached dwellings and 77 additional parcels of vacant property (approximately 6 acres in total) would be sold to adjacent property owners to augment the size of various lots.

The parkland along the lake would be improved by a linear walkway. In addition, a landscaped buffer would be built along the QEW. There would be no change to the commercial and institutional sites.

3. Sewers and Single Family Infill

Under Option 3, the provision of sanitary sewers to the entire area would allow for the creation of additional standard building lots. In total, 137 single family lots would be created and sold and 21 remnant (publicly-owned) parcels would be sold to increase the lot size of existing private properties. Thirteen existing residential properties would be acquired for the QEW buffer.

As in Option 2, improvements would be made to the existing lake parkland and the commercial and institutional uses would remain unchanged.

4. Sewers and Increased Density

Option 4 would change the residential character of the Beach from almost exclusively single family by adding higher density units in certain sections, including townhouses and apartments. Sanitary sewers would be provided for the entire Beach Area. Twenty-four

2. DESCRIPTION OF OPTIONS

3.

existing single family lots would be acquired for redevelopment and an additional 13 lots would be purchased for the QEW buffer. In total, 72 new single family lots would be created, together with land to accommodate 117 townhouse units and 90 apartment units. As with the other options, there would also be improvements made to the existing parkland and an open space buffer parallel to the QEW.

5. Sewers and Highest Density Infill

Option 5 would be identical to Option 4, except for an increased density achieved through a change in the townhouse/apartment unit mix. Under this option, there would be 57 townhouses and 248 apartment units, in addition to the 72 new single family lots.

3. BASIS FOR ANALYSIS

4.

3.1 General Assumptions

The following overall assumptions were used in undertaking the economic impact analysis:

- o All revenues, expenditures and valuations are in 1987 dollars, based on broad, feasibility study order-of-magnitudes.
- o All lots will be used for the construction of new housing units in accordance with the options set out by Moore/George Associates Inc. as outlined in Section 2.
- o Under Options 3, 4 and 5, all units in the Beach Area will ultimately be connected to the municipal sewer system.
- o Under Options 4 and 5, the increase in density will be achieved through rezoning of private properties rather than public acquisition and rezoning.

3. BASIS FOR ANALYSIS

5.

3.2 Detailed Assumptions for Each Factor

Economic Factor 1: Market Value Impact for Existing Residents

To predict the impact of the development options on the property values in the area, it was necessary to gain an understanding of the current real estate market. A review of recent sales in the area and discussions with several realtors familiar with the area, as well as representatives from M.T.C. and the City of Hamilton, provided insight into this component of the Hamilton real estate market.

When the land acquisition program was initiated in 1975, the Hamilton Beach housing market was weak and house prices were at the lower end of the Hamilton market. This situation was the result of a combination of factors including recent flooding, air and noise pollution, and the fabric of the neighbourhood. Since that time, programs have been emplaced to reduce the air and noise pollution and the sense of community has been strengthened. There is now public opposition to the acquisition and park development program and a strong commitment to the residential community. Also, many of the poorer quality homes on the Beach have been acquired and demolished and the majority of the remaining homes are in satisfactory repair. A household survey conducted by Moore/George Associates in June, 1986, indicated that many of the residents were renovating and upgrading their homes.

An overview of the responses from both the realtors and government officials indicated that attitudes towards the Beach as a real estate investment and residential community are changing. The people purchasing homes on the Beach are generally not expressing concerns over flooding, pollution, or the character of the neighbourhood. In recent years, house prices have been increasing at rates commensurate with values in the rest of Hamilton and prices are now on par with those in the east end of Hamilton.

There are three separate factors arising from a number of the development options that would have the effect of further increasing property values in the Beach Area:

- installation of sanitary sewers;
- increase in lot size by the sale of remnant parcels;
- general improvement to the landscape and character of the neighbourhood through new construction and economic stimulus.

The Beach Area is currently serviced by water and storm sewers but not by sanitary sewers. The provision of sanitary sewers would clearly increase the value of homes on the Beach because of the convenience of sewers as compared to the maintenance and other limitations associated with septic tanks. Sanitary sewers would

3. BASIS FOR ANALYSIS

6.

3.2 Detailed Assumptions for Each Factor (Cont'd)

provide an additional benefit to those properties that are low lying and subject to flooding, in that the potential of ground water contamination would be reduced. The increase in property values that would result from the installation of sanitary sewers has been estimated at approximately 10% of current market values.

Under Options 2 and 3, there are plans to sell publicly-held parcels of land that are too small to be used as building lots. These parcels, which range up to several thousand square feet in size, would be sold to abutting landowners to expand their existing properties, thereby increasing property values.

A further increase in property values could be expected to result from the planned improvements to the open space, the addition of new residential units and the stimulus this would provide to property upgrading investments. The rate of this increase would vary with the options, but is expected to be in the range of 5-10%.

Economic Factor 2: Cost/Benefit to Public Sector

In examining this economic factor, the emphasis is on the cost or revenue generated by each option for the public sector, in particular, the Conservation Authority and its funding bodies. The financial implications that are considered are the cost of acquiring further properties, the revenue generated by the sale of property and the cost of developing the open space. The dollar values provided in the conclusions with respect to the purchase and sale of properties are order-of-magnitude figures (1987 dollars). For a more accurate estimate of costs incurred and revenue generated, a detailed evaluation appraisal would be required, once a specific option has been selected.

Economic Factor 3: Net City, Regional and School Property Taxes Generated

In 1979, the Region of Hamilton-Wentworth was reassessed under Section 63 of the Assessment Act based on 1975 market values. The use of 1975 market values is significant in that, during this period, property values in the Beach Area were among the lowest in the City of Hamilton. Extensive flooding had occurred in 1973 and many homeowners were requesting that the City purchase their properties because they were having difficulty selling them. The Conservation Authority and the City formulated their plan to acquire all properties along the strip in 1975. As mentioned previously, the property value situation on the Beach has improved in the interim.

3. BASIS FOR ANALYSIS

7.

3.2 Detailed Assumptions for Each Factor (Cont'd)

Despite any increase in value, assessments will remain constant, at least until the 1990 Assessment Rolls are returned. The Regional Assessment Office plans to update assessments to 1988 market values and any relative increase in property values would, in turn, increase taxable assessment relative to other areas of the City. (No shift in property taxes would be involved, if the increase in market values between 1975 and 1988 were the same throughout the City.) This analysis considers only the increase in assessment that could occur in 1990 as a result of the implementation of one of the options. Thus, no allowance has been made for the increase in value that has already taken place on existing units since 1975 and will continue to occur through to 1988.

To estimate the assessments that will be applied to the new units on the Beach, it was necessary to determine the market value of the property in 1975 and to multiply it by the factor calculated by the Regional Assessment Office for each class or type of property (e.g. single detached unit).^{*} Assessment Office officials have provided broad estimates of the 1975 market value for the different types of residential units that will be built under the options. Using these values and applying the appropriate factor provides an estimate of the assessment increase which would result from the implementation of each of the options.

The Hamilton Region Conservation Authority pays full municipal taxes on its property. Currently however, there is an arrangement between the City of Hamilton and the Conservation Authority wherein all properties owned by the Authority are rented back to the City for an amount equal to the taxes levied. It is assumed that this practice would be discontinued once one of the options was implemented and Authority properties would be assessed and taxed on an acreage basis, plus the value of concessions, as is currently the case with Confederation Park. The Ministry of Transportation and Communications makes payments-in-lieu of taxes on their properties. These payments are equivalent to their assessment multiplied by the City and Regional portion of the mill rate. Provincial properties do not make a contribution to the school board requisition.

^{*} For the purpose of estimating assessments, it has been assumed that all new units are freehold or condominium.

3. BASIS FOR ANALYSIS

8.

3.2 Detailed Assumptions for Each Factor (Cont'd)

Economic Factor 4: Land Ownership

The data represents net loss or gain in each case. For instance, in the case of Option 3, 13 additional units would be acquired, and 137 new units created, producing a net increase of 124 units.

Information on the acquisition requirements and resulting number of new units under each scenario was provided by Moore/George Associates Inc.

Economic Factor 5: Business Incomes and Jobs Increased

A general assessment of the impact of each scenario on business incomes and potential increase in jobs was completed based on industry standards for the square footage of local retail space which can be supported on a per capita basis.

Economic Factor 6: Housing Needs Met

The number of housing units lost or gained was calculated based on the change from the approximately 400 units currently in the Hamilton Beach Area.

The impact on recreational needs has been assessed by Moore/George Associates Inc. as part of their analysis.

Economic Factor 7: Municipal Services Provided and Costs Incurred

Under Options 3, 4 and 5, sanitary sewers would be provided throughout the Beach Area. Also, under Options 4 and 5, there is a possibility that there would be a sufficient number of school children to re-open the existing school.

The cost to provide sanitary sewers to the Beach Area has been estimated at \$6,000,000 by Parker Consultants, with the possibility of additional costs for higher density development to be borne by the developers. This cost includes trunk installation, street resurfacing, pumping stations, connections to the street line, etc. The Region of Hamilton-Wentworth*, which is responsible for sewers in the Beach Area, has indicated that sewers would probably be installed under the Local Improvement Act. This would, of course, be a decision of Regional Council. Under this Act, owners contribute to the cost of the works through a special one time charge or an annual

* Information on sewer financing arrangements was provided by the Regional Engineering Department.

3. BASIS FOR ANALYSIS

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3.2 Detailed Assumptions for Each Factor (Cont'd)

payment over a 15 year period. The Region's policy is to charge a set rate per metre of frontage (which applies to each side of the street), regardless of the actual cost of the project. The 1987 rate per metre (for projects constructed this year) is \$134 (typically \$1,200-4,000/lot); this rate can be expected to increase annually with inflation. In addition, the owner must pay a "connection charge" to the Region. This covers the cost of constructing the connection to each house from the main sewer line to the property line; this charge is based on actual cost and is estimated to be \$2,000 per unit by Parker Consultants.

In addition, each owner would be responsible for funding the construction of the sewer line from the property line to the dwelling and the internal changes required to disconnect the septic tank. This is estimated by Parker Consultants to be approximately \$2,500 per unit.

Total costs for each existing unit would, therefore, be \$5,700-\$8,500, although the local improvement and connection portion could be funded over a 15 year period (\$519/year for a 15 metre lot).

Under the Region's current policy for Local Improvement funding, the installation of sewers in the Beach Area would still result in a major part of the expenditures to be funded from the general Regional tax base. The revenue under Local Improvement is estimated generally to cover only about 45% of total costs under any of three options. Provincial grants may be available to assist further with these costs however. Any such special grants are not predictable at this time, nor is the share of possible grants which might be allocated to individual owners, as opposed to the Region and/or the Authority.

Connection to the municipal sewer system is not compulsory; however, the frontage rates are charged with or without the connection to the service being installed (\$260/year for a 15 metre lot).

Further, sewer surcharge rates are applied to the homeowner's water bills with the connection to the sewer. This is estimated to add approximately \$80 per unit to water charges.

TABLE 1
SUMMARY OF ECONOMIC IMPLICATIONS OF HAMILTON BEACH STUDY OPTIONS

ECONOMIC FACTOR	1. MARKET VALUE IMPACT FOR EXISTING RESIDENTS	2. NET COST/ BENEFIT TO PUBLIC SECTOR*	3. CITY, REGIONAL & SCHOOL TAXES LOST/GAINED	4.		5. BUSINESS INCOMES & JOBS INCREASED	6. HOUSING NEEDS MET	7.	
				PRIVATE	PUBLIC			PRIVATE	MUNICIPAL
OPTION									
1	N/A	-\$37 million	-\$225,000	-418 lots	+418 lots	- existing commercial eliminated; some additional tourist related employment added	- minus approximately 400 housing units	\$0	\$0
2	5% overall increase plus an increase for those properties expanded	-\$6 million	+\$10,000	-100 lots +47 lots plus enlargement of 77 existing lots	-47 lots	- some loss of commercial potential due to reduction in number of residents	- minus approximately 50 housing units	\$0	\$0
3	20% overall increase plus an increase for those properties expanded	+\$3 million	+\$220,000	-13 lots +137 lots plus enlargement of 21 existing lots	+13 lots -158 lots	- additional potential for local commercial space due to increase in residents (approx. 3,500 sq.ft.)	+ approximately 120 housing units	\$5,700-8,500 per lot + \$80 annual sewer charge	\$3,500,000 for sanitary sewer servicing
4	15-20% overall increase	+\$3 million	+\$300,000	-37 lots +279 units	+13 lots -105 lots	- more local commercial potential added (approx. 3,000 sq.ft. beyond Option 3)	+ approximately 240 mixed density housing units	\$5,700-8,500 per lot + \$80 annual sewer charge	\$3,500,000 for sanitary sewer servicing
5	15-20% overall increase	+\$4 million	+\$380,000	-37 lots +372 units	+13 lots -106 lots	- greatest local commercial potential (approx. 5,500 sq.ft. beyond Option 3)	+ approximately 340 mixed density housing units	\$5,700-8,500 per lot + \$80 annual sewer charge	\$3,500,000 for sanitary sewer servicing

*excluding the cost of installing sanitary sewers (which is provided for in Column 7)

The economic implications of the Hamilton Beach options, as set out by Moore/George Associates Inc., are detailed on Table 1 and summarized below.

Option 1: Total Acquisition and Park Development

Under Option 1, no impact on market value for existing residences has been noted because all residential units would be purchased and demolished for parkland. The cost, to the public sector, of acquiring the remaining properties has been estimated to be in the range of \$32 million. When the cost of parkland development is considered, the total cost to the public sector is in the range of \$37 million. The annual operating cost for the park has been estimated at \$200,000 per year. The loss of residential units combined with the loss of existing commercial establishments, would result in a significant loss in gross property taxes generated in the Beach Area, although there would be some off-setting taxes produced by the park development. Further, because the School Board portion of the mill rate is almost 50% of the total and Provincial education grants increase generally in line with property tax reduction, the net tax loss would probably be in the order of 60% of the figure shown. A total of 418 privately held lots (400 residential and 18 commercial) would be acquired by the public sector. All employment currently provided by the existing commercial uses would be eliminated but some new employment would be generated by tourist concessions in the new park. Since sewer servicing is not proposed under this option, no costs are included.

Option 2: No Sewers, 1/2 Acre Lot Infill

If Option 2 were implemented, existing property owners could expect to experience an increase in market value in the order of 5%. This increase would result from improvements to the open space, the addition of 47 new residential units and the end of speculation about the future of the Beach Area. The estimated cost to the public sector, of acquiring property and making improvements to the open space, would be \$8 million and the estimated value of the public sector land to be sold would be \$2.5 million. This results in a net cost of \$6 million. A net increase of approximately \$10,000 in additional property taxes would be generated as a result of this increase in market value and the new units. The actual net tax benefit would be smaller than the figures shown in Table 1 (for Options 2, 3, 4 and 5), since the additional residential units would also generate a growth in population which would create an increased demand for municipal services. An estimated \$15,000 would ultimately be paid by the existing property owners in the

Option 2: No Sewers, 1/2 Acre Lot Infill (Cont'd)

Beach Area. The eventual increase in taxes from the new units would be offset by the loss of 100 existing residential units. One hundred privately-held lots and 47 publicly-held lots would be combined to produce 47 half acre lots that would be sold to the private sector. In addition, 77 private properties would be enlarged with remnant parcels of public property. There could be some loss of commercial space potential as a result of the reduction in the number of residents; in total, there would be a net loss of 50 housing units in the Beach Area.

Option 3: Sewers and Single Family Infill

Option 3 would be expected to increase property values for existing owners by approximately 20% as a result of improvements to the open space, the provision of sanitary sewers and the addition of 137 new residential units. The 21 private properties that would be expanded by the acquisition of remnant parcels should experience an additional increase in value in the order of \$2/sq. ft. or \$5,000 per parcel. The cost of acquiring properties for the buffer and the development of the buffer and walkway would be approximately \$2.5 million. When this is subtracted from the projected revenue of \$5.5 million for the sale of publicly-owned land, the net gain to the public sector would be \$3 million. In total, this option would generate an additional \$220,000 in gross property taxes as a result of the increase in market value and the addition of 137 new residential units. The existing residents are forecast to pay \$60,000 of this amount when reassessed. Thirteen privately held lots would be acquired by the Conservation Authority to provide for a buffer; 158 publicly-held lots would be sold to produce 137 buildable, residential lots and expand 21 private properties. The increase in the total population in the Beach Area could generate a demand an additional 3,500 square feet of local commercial space; the net increase in housing units would be approximately 120. The public sector cost of providing sanitary sewers to the Beach Area in all serviced options, has been estimated to be approximately \$3.5 million; the total cost for property owners would be in the range of \$5,700 to \$8,500 per lot, depending on the length of frontage. An annual sewer surcharge of \$80 per unit would also be payable.

Option 4: Sewer and Increased Density

Under this option, property owners could expect an increase of 15 to 20% in property values. It is expected that while more new units would be added than in Option 3, they would not have the effect of further increasing property values because of the increase in density and, depending on the unit type and tenure may

4. CONCLUSIONSOption 4: Sewer and Increased Density (Cont'd)

even reduce some of the value increase possible in Option 3. As with Option 3, the cost of implementing this option would be approximately \$2.5 million and, the revenue generated from the sale of properties would be \$5.5 million, which results in a net gain of \$3 million. The combination of new units and the increase in value of existing properties would produce an additional \$300,000 in gross property taxes; the existing residents would contribute \$60,000 of this amount on reassessment as a result of the installation of sewers and general upgrading. Thirty-seven privately-held residential properties would be purchased; 13 of these properties would be acquired by the Conservation Authority for buffering and the remaining 24 would be acquired as part of rezoning and redevelopment. These lots, combined with part of the 105 publicly-held properties to be sold, would produce 207 new residential units. The balance of the publicly-held property would be used to create 72 single family lots. In total, there would be a net increase of 240 residential units with a potential to generate an additional 3,000 square feet of commercial space beyond the previous option.

Option 5: Sewers and Highest Density Infill

This option is also estimated to increase property values of existing owners by 15-20% for the reasons stated in Option 4. The cost of \$2.5 million to acquire properties and develop a buffer and walkway is offset by approximately \$6.5 million in revenue from the sale of properties; the net gain to the public sector would be \$4 million. The increase in gross property taxes would be in the order of \$380,000 with existing residents contributing \$60,000 of this total. The balance of the increase in taxes would be paid by the 377 new residential units. As in Option 4, 37 privately-held properties would eventually be eliminated to provide for buffering and rezoning. A further 106 publicly-held properties would be used for higher density development and the creation of 72 single family lots. With a net increase of 340 housing units, this option has the greatest potential for additional commercial space; it is estimated that the demand will be 5,500 square feet beyond Option 3.

OPTION 3: Lower and Increased Density (Cont'd)

...value of the increase resulting in Option 3. As with Option 1, the cost of implementing this option would be approximately \$1.5 million and the revenue generated from the sale of properties would be \$5.5 million, which results in a net gain of \$4 million. The construction of new units and the increase in value of existing properties would provide an additional \$200,000 in gross property taxes. The existing residents would contribute \$100,000 of gross property taxes as a result of the construction of new units and general upgrading. Thirty-seven privately-held residential properties would be purchased; 13 of these properties would be acquired by the Congregation Authority for housing and the remaining 24 would be acquired as part of the renovation and redevelopment. These lots, combined with part of the 105 publicly-held properties to be sold, would provide 501 new residential units. The balance of the publicly-held property would be used to create 15 single family lots. In total, there would be a net increase of 516 residential units with a potential to generate an additional \$1,000,000 square feet of commercial space beyond the present option.

OPTION 2: Lower and Highest Density (Cont'd)

This option is also expected to increase property values by reducing demand for 15-20% for the reasons stated in Option 1. The cost of \$2.5 million to acquire properties and develop a buffer and highway is offset by approximately \$8.5 million in revenue from the sale of properties; the net gain to the public sector would be \$6 million. The increase in gross property taxes would be in the order of \$250,000 with existing residents contributing \$20,000 of this total. The balance of the increase in taxes would be paid by the 375 residential units. As in Option 1, 33 privately-held properties would eventually be eliminated to provide for buffering and housing. A further 202 publicly-held properties would be used for higher density development and the creation of 15 single family lots. With a net increase of 340 housing units, this option has the greatest potential for additional commercial space; it is estimated that the amount will be 5,500 square feet beyond Option 1.